# Interkulturelle Bildungsforschung 



A Comparative Study

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herausgegeben von<br>Ingrid Gogolin<br>und Marianne Krüger-Potratz

Band 17

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# Bilingual Language Proficiency 

A Comparative Study



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To my son Gaspar and his bilingual language proficiency


#### Abstract

This study aims to investigate the role played by the mother tongue in the process of second language acquisition within a bilingual educational model, with particular attention to the development of an appropriate academic register. It is based on the longitudinal assessment of a group of students during two years of schooling (fifth and sixth grades) at a Portuguese-German bilingual school in Hamburg. To enable the effects of the bilingual education programme to be more precisely assessed, the students' performance was compared with two control groups of peers, one attending submersion classes in Hamburg and the other following the normal public education programme in Portugal, in the town of Vila do Conde. The aim was to evaluate the development of bilingual narrative skills (both written and oral), focusing specifically on the academic register needed to achieve school success. Teaching conditions, family socioeconomic status and pupils' cognitive abilities were all controlled, and educational achievement was measured by means of an externally-validated standard reading-comprehension test.

Results showed that students learning in the bilingual environment had a considerable advantage over their peers in almost all categories assessed, both in written and oral samples. They developed a more proficient bilingual academic register than the students attending submersion classes, and were able to produce both oral and written narratives regardless of socioeconomic status and cognitive abilities. When these results were assessed using the external measure for school achievement, the advantage of the pupils attending bilingual classes was confirmed. The main factors contributing to this success seemed to be the explicit and continuous language instruction method, which focused on achieving academic proficiency through scaffolding techniques.


## Zusammenfassung

Diese Studie arbeitet die Rolle der Muttersprache heraus, die sie in einem bilingualen Modell beim Prozess des Spracherwerbs einnimmt, insbesondere in Bezug auf die Entwicklung der Bildungssprache. Sie basiert auf einer longitudinalen Beobachtung von Schülergruppen - fünfte und sechste Klassen - über zwei Jahre hinweg an einer zweisprachigen Portugiesisch-Deutschen Schule in Hamburg. Um die Ergebnisse einzuordnen, wurden zwei Vergleichsgruppen herangezogen, die jeweils aus Schülerinnen und Schülern zweier Regelschulklassen in Hamburg und in Vila do Conde, Portugal, zusammengesetzt waren. Die Einbeziehung der Vergleichsgruppen ermöglicht eine genauere Bewertung der Auswirkungen eines solchen Unterrichtsmodells. Die gesammelten Daten erlauben eine Evaluierung der Entwicklung der bilingualen narrativen Fähigkeiten insbesondere im Hinblick auf das sprachliche Register der Bildungssprache, das für das Erreichen eines höheren Bildungsabschlusses nötig ist. Es wurden sowohl Daten über die schriftlichen als
auch über die mündlichen Fähigkeiten erhoben. Das Lehrumfeld, der sozioökonomische Status der Familien sowie die kognitiven Fähigkeiten der Schülerinnen und Schüler wurden kontrolliert. Zur externen Leistungskontrolle wurde ein standardisierter Test für das Leseverständnis durchgeführt. Die Ergebnisse dieses Tests wurden ebenfalls verglichen. Die Ergebnisse weisen in nahezu allen beobachteten Kategorien - sowohl im Mündlichen als auch im Schriftlichen - auf einen beträchtlichen Vorteil der Schülerinnen und Schüler hin, die im bilingualen Umfeld lernen. Im Vergleich zu den Gleichaltrigen aus den Regelschulklassen entwickelten die Schülerinnen und Schüler, die kontinuierlich am bilingualen Bildungsprogramm teilgenommen haben, eine bessere bilinguale Kompetenz im akademischen Diskurs. Sie waren in der Lage mündliche oder schriftliche Narrationen unabhängig vom sozioökonomischen Status der Familie und den individuellen kognitiven Fähigkeiten zu produzieren. Der Vergleich dieser Ergebnisse mit den Befunden aus der externen Leistungsüberprüfung bestätigte diesen Vorsprung der Schülerinnen und Schüler bilingualer Klassen. Hauptsächlich scheint ein explizit und kontinuierlich durchgeführtes Sprachlehrprogramm zu diesem Ergebnis geführt zu haben, das darauf ausgerichtet ist, Schulleistungen durch die so genannte Scaffolding-Technik aufzubauen.

Keywords: bilingualism, biliteracy, dual-language education, cognitive-academic language, bilingual narrative skills

Schlüsselworte: Zweisprachigkeit, Bildungssprache, zweisprachige Erziehungsmodelle, Narration

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## Introduction

I have never known what is Arabic or English, or which one was really mine beyond any doubt. What I do know, however, is that the two have always been together in my life, one resonating in the other, sometimes ironically, sometimes nostalgically, most often each correcting, and commenting on, the other. Each can seem like my absolutely first language, but neither is.

Edward Said

## Migration and Multilingualism in the European context

The co-existence of different languages in the same geographical space is an empirical fact that has a long history. However, with the migration movements of the last 60 years, it is likely to become even more prevalent in the future, particularly in large Western cities. This "new migration" (cf. Koser and Lutz, 1998) has arisen as a result of a link between political and economic changes, and developing patterns and processes of migration; and although migration and multilingualism have always been features of world history, this more recent migration to Europe has given rise to new conflicts, as "new migrants, and particularly undocumented migrants and asylum seekers, have become the focus for a brand of moral panic in many European societies, in which they represent a broader social symbol of immigrants who abuse the welfare state, commit crimes and threaten the employment of established citizens" (idem: 3). Thus, this view of migrants as being somehow reluctant to integrate is associated with a view of their languages as the last tie to a home-culture which will not be relinquished - an attitude that becomes particularly common in times of great economic crisis.

Yet, the question of language use and rights has become extremely relevant in contemporary Europe, where continuous social and cultural changes defy such nationalistic and monolingually-oriented language policies and ideologies. The changes brought about by migration and international mobility alongside language policies set up by the European Union bring clear implications for language teaching, especially as regards heritage languages. Indeed, multilingualism, often without being further defined, is one of the stated aims of many European policies. For example, in 2008, the following announcement appeared on the site of the Délégation Générale à la Langue Française et aux Langues de France (DGLFLF) / French Embassy, Berlin

On the European Day of Languages, 2008, several French Ministries invite 1000 persons from all countries of the EU and the EEA to take an inventory of multilingualism in Europe. This event is a highlight of the French EU Presidency. During the debate, political decisionmakers from the different countries will present their conceptions of multilingualism and put them up for discussion. On this occasion, EU Multilingualism Commissioner Leonard Orban will present his plan for promotion of multilingualism and emphasize the role of the EU in this matter (...). In parallel, a language festival will be celebrated in the streets of Paris: in
public buildings and foreign culture centres of the city it will be possible to hear, read, write and learn European languages. ${ }^{1}$

Hence, in official circles, multilingualism is celebrated, discussed and praised, while in everyday life, heritage languages are often disparaged by individuals and institutions used to the idea of monolingualism. Indeed, most European states still see themselves as monolingual entities playing host to a few migrant groups, whom they expect to automatically learn their language, often at their own expense.

This research arose from the need to address this paradox between the official European line on multilingualism and the reality as experienced by migrants in different national or regional contexts.

## Political relevance

The issue of multilingualism is of particular interest when analysing the situation of migrants within European educational systems. According to international monitoring studies such as PISA $^{2}$ or PIRLS/IGLU ${ }^{3}$, minority students fail to achieve the same educational outcomes as their monolingual peers, which means that migrant groups constantly occupy lower-status positions within society. This is particularly true in Germany where the gap between the performance of monolinguals and their migrant peers is one the widest in the PISA sample (cf. Deutsches PISA-Konsortium, 2001).

The long-term consequences of this systematic underachievement of migrant students are yet to be determined. Nonetheless, it can be claimed that it is a massive waste of available human resources and a contradiction per se. On the one hand, modern Western societies cannot survive economically without the contributions of their migrants, and many efforts have been made to attract "skilled" workers from other states to work in areas such as engineering and electronics (cf. Brücker, Epstein, et al., 2001). However, fewer efforts are made in Europe to appropriately support migrants already living in those states and whose connection with the country goes back two or three generations. This can only be attained with a reformulation of European education systems to address the needs of linguistically-diverse school populations. There are successful international examples of education systems that are sensitive to a multilingual population (in Australia and Canada, for example), which could be used as models.

[^0]
## Multilingualism: a controversial issue

The contradiction between the public celebration of multilingualism by official European bodies and the everyday discrimination suffered by certain migrant groups on the grounds of their linguistic and cultural affiliations affects not only educational institutions but also other areas of society. It is also evident in the way migrants are depicted in the media. In his article "Media and Migration: Ambiguous relationship for complex debates", the Media and Diversity Manager for the Council of Europe, claims:


#### Abstract

Immigration is still perceived as an unfair concurrence and a security and/or economic threat by certain fringes of the public opinion in Europe. This negative perception of migration can only be counterbalanced by a professional and high quality press coverage that takes into account migrants' provisions and contributions to the economic, social, cultural and political dynamics of our contemporary societies. In this sense media professionals have a primordial role to play towards public opinion: to stimulate and guarantee a pluralism of points of view and opinion, susceptible to ensure a real democratic debate over migration issues and their impacts. (Blion, 2008 ${ }^{4}$ )


However, this paradoxical attitude to multilinguals is also apparent within research on multilingualism, as described in the recent publication Streifall Zweisprachigkeit - The Bilingualism Controversy (Gogolin and Neumann, 2009). On the one hand, there are researchers who adopt a global approach to the issue and try to combine the different perspectives, while at the same time taking into account political, sociological and institutional aspects (cf. for example the contribution of Hesse and Göbel in the book). This kind of research normally perceives the bilingual as focused on his linguistic and cultural resources, and considers multilingualism as a form of cultural capital which can benefit both individuals and society in general. Furthermore, the reasons for the educational underachievement of migrant pupils are not sought within the individuals themselves, but are rather seen as resulting from particular political and sociological constellations that produce general systemic deficiencies.

On the other hand, certain sociological studies, largely of quantitative nature (cf. Esser's contribution to the book, and also Esser, 2006), claim to have found no evidence for the positive contribution of bilingualism to the integration of migrants within a host community. According to this perspective, the explicit fostering of bilingualism in schools would in fact hinder integration. Although this assimilationist attitude towards bilingualism has been largely criticized in the North American debate (cf. Cummins, 2000), it forms the basis for major European Union decisions.

At the 2009 European Conference on "Migration and Mobility: Challenges and Opportunities for EU Education Systems" ${ }^{5}$, the results were presented of an EU-

[^1]commissioned report on "Strategies for integrating migrant children in European schools and societies" (Heckmann, 2008). This report clearly states that "priority should be given to the common language of the immigration country, since full command of the first language does not seem to be a necessary condition for learning the lingua franca of the immigration country" (2008: 77). On the basis of this report, the European Commission is now unclear as to how to officially proceed with the issue of fostering first language acquisition within European school systems.

This book aims to contribute to this on-going debate by providing positive evidence to support the fostering of bilingualism in schools within a model which perceives multilingualism as cultural capital.

## Multitude of approaches: brief overview of theoretical perspectives

Another paradox confronting the research on migration, multilingualism and education arises from the fact that the field has been explored by a variety of different disciplines in a more or less isolated way, with little recourse to interdisciplinary approaches. Multilingualism has been researched by linguists of different persuasions (such as neurolinguists, sociolinguists, psycholinguists, etc), sociologists, ethnologists, psychologists, educationalists and others, leading to a variety of different perspectives on the subject that have not necessarily always benefited from each other.

This work thus constitutes an effort to combine a linguistic approach with a sociological and educational view on multilingualism. From the linguistic point of view, it draws on Cummins' well-documented distinction between Basic Interpersonal Communication Skills (BICS) and Cognitive-Academic Language Proficiency (CALP; Cummins, 1979) and his claim that educational underachievement of language minority students derives from failure to acquire CALP-related skills in the second language. The concept of academic register and its use in school settings will thus be examined, as well as specific features in both the German and Portuguese languages. The analysis includes the examination of the relationship between the use of such linguistic features and validated measures for educational achievement.

From a sociological point of view, Bourdieu's theory on the Forms of Capital (1986) will be used as general theoretical framework for the analysis of the situation of migrants within the field of Westernized societies. The particular case of State-institutionalized cultural capital (i.e. officially acknowledged academic credentials or qualifications) would seem to be of particular relevance when referring to the situation of migrants and the social inequality deriving from their educational underachievement. Bourdieu's analysis of the reproduction mechanisms of social hierarchies will be investigated mainly from the perspective of identifying possible points of interruption in its circularity. The notion of habitus (Bourdieu, 1992) and
of the "monolingual habitus" of multilingual schools (Gogolin, 1994) will be used to demonstrate that the bilingual school model can contribute to the development of a bilingual school habitus that is appropriate for the needs of linguistically-diverse school populations, such as those increasingly found in modern societies.

Lastly, from the educational point of view, the book makes a contribution to the issue of school development, as well as to classroom organization and didactics. At the end, recommendations are made as regards the implications of the study upon school organization. A concrete depiction of the bilingual model and of classroom activities also provides the basis for a discussion on educational methodology for integrated second language instruction, such as contrastive language teaching or the use of bilingual scaffolding techniques.

## Defining the terminology

Günther List (2009) has described the term "bilingualism" as a ghostly concept, which everyone uses, but which needs to be pinned down. However, like "multilingualism", it is notoriously difficult to define. There are countries (such as Canada) which consider themselves as multilingual; others (like Belgium), which see themselves as bilingual, and still others (including Luxembourg and Switzerland) which perceive themselves as trilingual. There are also researchers who claim that every speaker is multilingual to some extent and that multingualism exists within a single tongue (cf. Wandruszka, 1979). There have been many different approaches to this issue over the years, and individual bilingualism has frequently been seen as a kind of impairment or disorder which should be avoided.

Although the task is a challenging one, this book aims to clear away some of these terminological misunderstandings by offering a historical overview of attitudes towards bilinguals.

## The study

This work seeks to evaluate a school model which may help to reduce the bilingualism controversy described above by fostering bilingualism and biliteracy amongst both migrant and host community students, within a school setting that deliberately cultivates positive attitudes towards multilingualism. It focuses upon a series of different bilingual classes in the city of Hamburg that implement a socalled "dual language instruction model", whereby approximately half of the class is proficient in the host community's language, while the other half speaks one of the heritage languages. By learning in a coordinated and continuous bilingual environment, these student groups become increasingly more proficient in both languages, while also acquiring proficiency in academic register. In fact, some researchers (Roth, 2006; Gogolin and Roth, 2006) argue that one of the main reasons for the educational disadvantage displayed by immigrant students within the Ger-
man educational system is precisely their lack of proficiency in academic register. In the Hamburg bilingual schools, the aim is to attain bilingual proficiency in academic register, thus allowing all students to achieve higher educational success.

The study evaluates one of the Portuguese-German bilingual classes within the Hamburg schools by means of a two-year longitudinal assessment across the fifth and sixth grades. It thus represents a continuation of the first four years of scientific monitoring of the bilingual classes conducted by the University of Hamburg (for a summary of these results, see Chapter 6). However, in order to compare the educational outcomes of these students, two control groups were added in this study: one consisting of Portuguese-German bilingual students attending submersion classes in Hamburg, and the other made up of monolingual students in Portugal. The research focuses particularly on the development of bilingual narrative competence, especially the type of academic register required for school achievement. The data were collected in both written and oral forms. The families' socioeconomic status and educational background were controlled, as were the students' cognitive skills and the educational setting. As an external measure of school achievement, the internationally validated standard PIRLS/IGLU reading-comprehension test was applied. Thus, this research, in addition to describing the Hamburg bilingual instruction model, aims to offer some suggestions for how such programmes may be successfully implemented. On a wider scale, it also supplies reliable results to support the claim that bilingual instruction may be considered a facilitator of bilingualism and biliteracy, thereby revealing some of its potential for the integration of immigrants in a globalized society.

## Organization of the book

This work is organized into eleven chapters. The first chapter addresses the question of multilingualism from a linguistic, sociological and educational perspective. It provides an overview of this multifaceted concept and the consequences of linguistic diversity resulting from migration movements, particularly as regards education and educational policy. For this purpose, the terminology used throughout the study will be presented and defined. In order to differentiate between the various types of bilinguals and so better understand the sample analysed in this research, a typology of bilingualism, as well as a summary of the attitudes towards bilinguals, will be attempted. Finally, the multilingual situation in Germany will be discussed, particularly with respect to educational, social and economic considerations.

The specific issue of language within a school setting will be explored in the second chapter. Starting with a summary of the debate about school achievement and language, a distinction will be made between conversational fluency and academic proficiency. The concept of academic register, central to this study, will be
examined for both languages involved in the bilingual instruction programme being assessed.

The third chapter provides an overview on the term "bilingual education", firstly in an international context, then within the German school system. Particular emphasis will naturally be given to the dual language education model being applied in the bilingual class in the Rudolf Ross School and to the educational results achieved within such programmes.

Chapter 4 will offer a brief portrait of the Portuguese community in Hamburg and Germany. Commencing with a short historical perspective, the current situation of Portuguese migrants will be described, and the status of the Portuguese language will be discussed in an attempt to establish it as a typical heritage language, in spite of its long tradition within the Hamburg urban area.

Chapters 5 and 6 provide an overview of the study, along with a summary of the results obtained with the same group of students in the four years prior to this research. Information is provided on language use, school performance and classroom setting within the bilingual programme, thereby contextualizing this research.

Chapter 7 describes the sample population and their families. As the students attending the Rudolf Ross School will be compared with other bilingual students in submersion classes in Hamburg and with monolingual students in Portugal, the comparability of these three groups will be determined by the socioeconomic and educational background of the families and the cognitive abilities of the students.

Chapter 8 introduces the issue of narrative academic register in written and oral contexts, as this will be one of the main foci of the present study. It provides a theoretical overview of this topic and a summary of the international research conducted on bilingual students. The model being used throughout the data collection process will thus be described.

Chapters 9 and 10 present the results of the application of the narrative instrument developed for this study to the three groups of the sample. In the first instance, the students attending the bilingual program will be considered, after which their performance in the difference categories analysed will be compared to that of the other two groups in the sample. Finally, these results will be related to data referring to the families' socioeconomic and educational background, the cognitive abilities of the students and didactic considerations. Furthermore, student outcomes will be linked to reading comprehension results, as validated indicators of general school achievement.

Chapter 11 gives a final overview of the development of bilingual narrative skills within this dual language instruction programme, with the aim of contributing to the increased valorization of the role of heritage languages within the multilingual landscape in Germany.

A glossary of frequently-used German terminology has been compiled to facilitate understanding for non-German speakers. This can be found at the end of the book.

# I. Dealing with linguistic diversity: multilingualism, education and cultural capital 

Bilingualism has been and is nearer to the normal situation than most people are willing to believe.
E. Glyn Lewis

The cohabitation of different cultures in the same geographical location has been a constant feature of the history of mankind (Gogolin and Krüger-Potratz, 2006). It gained new impulse in the $15^{\text {th }}$ and $16^{\text {th }}$ centuries with the discovery of the 'New World', and boomed in the twentieth century, mainly due to what nowadays is known under the rather general term globalization. Referring to increasing global connectivity, integration and interdependence in the economic, social, technological, cultural, political and ecological spheres, globalization has been linked to many different trends, particularly since the Second World War, such as greater international movement of commodities, money, information and people, as well as the development of technology, organizations, legal systems and the infrastructures necessary for such movement. Consequently, multiculturalism has increased, and there is improved individual access to cultural diversity as a result of greater international travel and tourism, alongside increased migration.

However, these initial considerations introduce us to one apparent paradox of post-modern societies. On the one hand, the world is being homogenized through the globalization of information, trends, people, companies, etc, while on the other, there is growing cultural and linguistic heterogeneity, which also appears to be setting a trend for the future. Taking language as an example, everyone would agree that English is nowadays the world's lingua franca, just as Latin once was. Hence, English is the language of globalization. The number of speakers, including those for whom English is a second language, is estimated at between 470 million to over a billion, depending on how proficiency is defined, while there are those who claim that non-native speakers actually outnumber native speakers by a ratio of three to one. Is it actually possible for such a vast community of speakers spread across the planet to speak a homogeneous language (not to mention the great many dialects that exist even within a single country)? Globalization is indeed a concept based on its own internal diversity, so that one could conclude that diversity contributes to homogenization.

It has been estimated that there are around six thousand languages spoken in the world today (Wei, 2000; Baker and Jones, 1998), although many researchers suggest that the figure is actually much higher. As there are less than two hundred countries, it necessarily follows that multilingualism exists everywhere (yet another case of linguistic diversity!) This chapter aims to provide an overview of the concept of multilingualism and the consequences of linguistic diversity resulting from these migration movements, particularly as regards education and educational policy in Germany. For this purpose, the terminology used throughout this study will
be presented and defined. In order to distinguish between the various types of bilinguals and so better understand the sample analysed here, a typology of bilingualism, as well as a summary of the attitudes towards bilinguals, will be attempted. Finally, the multilingual situation in Germany will be discussed, particularly with respect to educational, social and economic considerations.

## 1. General considerations concerning bi- and multilingualis

Eine Sprache ist viele Sprachen.
Mario Wandruszka
The terms bilingualism and multilingualism are often used as synonyms to refer to diverse phenomena, such as the individual speaker who uses two or more languages, a community of speakers where two or more languages are spoken, or for speakers of different languages. However, for the purpose of this study, several distinctions must be made, as consensus does not exist regarding one absolute definition of these concepts. Henceforth, the terminology adopted follows that suggested by Gogolin (2005: 13):

- bilingualism refers to the individual level, and defines those persons or families who live in a situation where more than one language plays a role in everyday life. Nevertheless, as the author herself points out, in the lives of these families, it is often the case that more than two languages are used regularly;
- multilingualism refers to the social phenomenon related to the parallel existence of several languages in a given society.

The concepts behind this terminology are discussed in current literature, although some authors use other expressions, as is the case of Grosjean (1982), who distinguishes between social and individual multilingualism. The relationship between these two forms of multilingualism is complex, just as bilingualism itself is, as it is both the cause and consequence of social multilingualism. That is to say, the more languages are present in the same geographical space, the more bilinguals are likely to exist and the more multilingual a society becomes.

Another form of multilingualism, which also displays the inner diversity of this concept, is "diglossia", when two (often closely-related) languages co-exist in the same society. Normally one is more prestigious, used in government situations and formal texts, while the other corresponds to the spoken vernacular tongue. This is the case of the German spoken in the German-speaking part of Switzerland (Schwyzerdütsch). According to some contemporary Brazilian linguists (Azevedo, 2005; Módolo, 2004; Perini, 2002), the linguistic situation in Brazil is also highly diglossic. This theory claims that the mother tongue of most Brazilians speak is a vernacular, which is a simplified form of the standard language (grammatically, though not phonologically) and which may have evolved from sixteenth-century Portuguese, with influences from Amerindian and African languages. This coexists
with a Brazilian Portuguese standard, which is acquired through schooling and is very similar to Standard European Portuguese. According to Azevedo: "Considering the difficulty encountered by vernacular speakers to acquire the language standard, an understanding of those relationships appears to have broad educational significance. The teaching of Portuguese has traditionally meant imparting a prescriptive formal standard based on a literary register (...) that is often at variance with the language with which students are familiar. As in a diglossic situation, vernacular speakers must learn to read and write in a dialect they neither speak nor fully understand, a circumstance that may have a bearing on the high dropout rate in elementary schools" (1989: 870). This dilemma will be developed further throughout this study and extended to the particular case of bilinguals in multilingual societies.

In officially multilingual countries, bilingual speakers are the norm and it is consequently easier to acquire the different spoken languages. However, in countries with one official language spoken by the majority of its population, bilingualism remains a feature related to minorities, thus representing a deviation from the norm. Apart from this distinction between a first and a second language, multilingualism takes a number of other forms, such as the diglossia situations mentioned above or even other forms of varieties within the same language. So what exactly is meant by this concept marked by diversity?

### 1.1 Defining the undefinable: what is multilingualism? ${ }^{6}$

> Defining who is or is not bilingual is essentially elusive and ultimately impossible.

> Colin Baker

Much has been written on bilingualism in the sense of trying to define this multifaceted concept. Consequently, many perspectives have been considered, ranging from linguistic to socio- and philological definitions. At the root of all of these reflections about bilingualism lies the conviction that the human brain is able to acquire and retain several languages. According to Chomsky, this is possible due to a so-called Language Acquisition Device (LAD), which allows children to learn and categorize the rules of different languages. Similarly, Baker (2000b) claims that people have sufficient intellectual skills to acquire and use a number of languages whilst accepting that bilingualism is more likely to happen than trilingualism. In these cases, the prerequisite for the maintenance of the acquired language(s) depends on the necessity of using it/them in everyday life. Children who abruptly stop employing one of their languages tend to forget it (Grosjean, 1982).

[^2]It is indisputable, therefore, that bilingualism is possible and that a large number of the world's population is bilingual. But what criteria can be used to decide who is bilingual? How can bilingualism be defined? In trying to answer these questions, one issue came up relatively late - the fact that a sort of "perfect" or "complete" bilingualism does not and cannot exist, just as no researcher speaks of "perfect monolingualism". Rather one speaks of levels of proficiency. The most common term to cope with this inadequacy is the notion of balanced bilingualism. Peal and Lambert (1962) introduced this concept in response to a methodological dilemma faced by earlier studies in which so-called "pseudobilinguals," or those not equally proficient in two languages, were being examined. It is, however, rare for anyone to be equally proficient in speaking, reading and writing two languages across a range of situations and contexts. Taken literally, this notion would describe bilingual speakers who possess age-appropriate and native-speaker competence in two languages. Nevertheless, Fishman and Lovas note:

A fully balanced bilingual speech community seems to be a theoretical impossibility because balanced competence implies languages that are functionally equivalent and no society can be motivated to maintain two languages if they are really functionally redundant. (1972: 89)

Furthermore, Fishman argues that "bilinguals are rarely equally fluent in both languages about all possible topics," reflecting the fact that "the allocation of functions of the languages in society is normally imbalanced and in complementary distribution" (1971: 56). Romaine also comments that "the notion of balanced bilingualism is an ideal one, which is largely an artefact of a theoretical perspective which takes the monolingual as its point of reference" (1995: 18).

Research on bilingualism has dealt with such theoretical and terminological imprecisions by considering this concept from a variety of perspectives. Thus, the literature considers several factors in order to define and categorize the different types of bi- and multilingualism. These include:

- level of proficiency and communicative skills in both languages;
- age of the speaker upon contact with the languages, time gap between the acquisition and the extent of the linguistic contact;
- language functions;
- individual cultural identity of the speaker and linguistic maintenance within the social group;
- social environment of the individual or situation of multilingual countries;
- status of the languages;
- speakers' psychological motivation.

One of the most common approaches to the issue of bilingualism and what it means to be bilingual is thus related to the degree of proficiency achieved in the different languages. As early as 1933, Bloomfield defined bilinguals as those speakers with "native-like control of two or more languages" (Bloomfield, 1933: 56). Such a
definition remains current amongst some authors (cf., for example, Thièry, 1978), although the question of what native-like proficiency means and who decides on this has yet to be clarified. However, other researchers disagree with such an extreme definition of bilingualism; for example, in 1969, MacNamara, defined multilinguals as all individuals able to speak, read, or understand a second language, including in the case of reduced proficiency. In a similar way, for Haugen, a multilingual speaker "can produce complete, meaningful utterances in the other language" (1953: 7), which can be compared to MacNamara's view of reduced proficiency. In addition, Diebold's notion of incipient bilingualism (1964) allows people with minimal proficiency in a second language to fit into the category of bilinguals, a fact that had not been accepted by most researchers on bilingualism before.

In direct opposition to Bloomfield's definition, and even more minimalist lies Wandruszka's assertion: "Even in our native language, we constantly live in different languages, always understanding more than we use, always here and there incomplete and imperfect" (my translation ${ }^{7}$, 1979: 13f). Multilingualism thus happens within the mother tongue; that is to say, all monolinguals are actually considered multilingual. For Wandruszka all individuals are diglossic speakers, to some extent, and therefore themselves multilingual.

It can thus be seen that perspectives on multilingualism oscillate between three main viewpoints: individualist views, such as Bloomfield's; systemic views, such as Wandruszka's, which perceive language as a system; and diachronic perspectives based on the analysis of changes over time.

Of equal importance for the level of proficiency in each language is the distinction between symmetrical or active bilingualism, in which both languages are used in different situations but to a similar degree, and asymmetrical bilingualism, in which full proficiency in a particular skill is not attained in one (or even both) languages. The latter can thus be subcategorized into the following types: receptive or passive bilingualism, whereby the second language is understood but not spoken; non-receptive bilingualism, which happens when the language is spoken but not wholly understood; written-only bilingualism, when the language is used exclusively for reading and writing, and technical bilingualism, in cases where the language is employed for specific professional purposes. However, it must be recognised that further categories are required, relating to bilinguals' various skills and sub-skills. According to Baker, "the range and type of sub-skills that can be measured is large and debated (...). Language abilities such as speaking or reading can be divided into increasingly microscopic parts" (1996: 6).

When it comes to the issue of age, the views of authors are even more divergent. Initial considerations about this topic were relatively simple; bilingualism could only exist when both languages were acquired at a young age, and other sorts

[^3]of bilingualism were even seen as risky for the child's development. Although this attitude may seem to be scientifically outdated, that is not entirely the case. In fact, many researchers working on bilingual language acquisition still claim that age is the decisive factor for the definition of bilingualism. According to Chomsky's theory of the LAD (mentioned earlier), the capacity for language acquisition gradually decreases with age. This would explain why older children and adults are allegedly less successful in acquiring languages or require greater effort in order to achieve similar results. In even more recent studies, several authors have concluded that there are ages after which certain aspects of linguistic acquisition, mostly related to phonology, are more difficult to achieve. For example:

> It can be concluded that, after childhood (the approximate age of 10 has been defined as the watershed), language acquisition will exhibit clear differences when compared to native language acquisition. According to this, another relevant age period ... is around the child's fifth birthday ${ }^{8}$ (Meisel, 2003: 5).

Nevertheless, several other studies could not prove the existence of a natural reduction mechanism leading to a delay or even the loss of certain language acquisition skills. According to Romaine (2005), the fact that some individuals show na-tive-like control in a language acquired at an adult age contradicts these theories of a genetic device which affects linguistic acquisition skills. Reich and Roth claim:

Age undoubtedly plays a role in second language acquisition, though not in the sense that
the ability to learn the language diminishes with time; rather, along the different stages of
acquisition, specific age and situational skills are shown to be of advantage. ${ }^{9}(2002: 11)$
Another definition of bilingualism derives from the social function attributed to languages. For Weinrich (1953), bilinguals are those who make use of one or more languages, and are able to switch from one to the other. Similarly, Oksaar (1971) considers the fact that bilinguals can move between two languages as being the central feature of bilingualism; bilinguals are thus only those speakers who can automatically code-switch. For these authors, a definition of bilingualism includes the functional interchanging between the two languages. However, it must be noted that not all bilinguals are able to switch automatically from one language to the other or are capable of performing translations.

Functional bilingualism, however, is not only related to the ability to switch between languages, but also to an individual's use of his/her bilingual proficiency in general. According to Fishman (1976), this sort of bilingualism concerns when,

[^4]where and with whom people use their languages. However, this will vary from culture to culture, and region to region and depends on the nature and range of social events. According to Baker (1996: 12), it requires the study of five different dimensions:

1. the subject (i.e. the speaker)
2. the language target (i.e. the addressee(s))
3. the situation (e.g. in the factory, classroom, mosque)
4. the topic of conversation (e.g. sport, work, food)
5. the purpose for which it is being used (e.g. requests).

Hence, trying to define bilinguals on the basis of the functions they attribute to their languages seems to be a complex, if not impossible, task, and is one which is still contested by researchers.

Still related to the function of languages by bilinguals, but at a more social and less individual level, is the distinction between neutral or diglossic bilingualism. The first refers to the use of the two languages without external requirement, while the second occurs when the use of the languages is determined by external factors.

Some authors associate bilingualism with cultural aspects. According to this, change generally (though not always) occurs over the years. Firstly, bilinguals are seen as individuals with two languages and, consequently, two cultures. This bilateralism was predominantly perceived as problematic. Adler, for example, asserted that "the bilingual lives in two worlds, and it is difficult, if not impossible for him, to reconcile them" (1977: 40). However, more recent research tends to attribute a central role to language and its impact on self-understanding of minorities (Smolicz, 1991). It has been proven that in some cases language affects identity. In a study involving Japanese-American women (Ervin-Tripp, 1968: 203f) in which respondents were asked to complete sentences in both Japanese and English, the results showed that the endings to the sentences were not only fully different in both languages, but that they portrayed two diverse cultural codes. ${ }^{10}$ For example:

> When my wishes conflict with my family...
> (Japanese) it is a time of great unhappiness.
> (English) I do what I want.
> Real friends should...
> (Japanese) help each other.
> (English) be very frank.

The issue of identity, culture and multilingualism is therefore very complex, like many issues related to this concept. Grosjean (1982) claims that it is unlikely that the language itself changes the bilingual's personality and attitude, but that the environment and the culture link them. On the other hand, it could be argued that

[^5]identity influences language choice. In a study conducted in a Francophone school in Canada, many of the bilingual students often code-switched with each other although the school insisted on the use of French (Heller, 1988). These students did not want to adopt the strong French identity promoted by the school. As Edwards (1997) claims, language serves not only as a communication tool, but can also be "an emblem of groupness", particularly if one can choose between two languages/groups. Thus, "By choosing to speak a particular language in a particular context, the bilinguals are expressing who they are and where they stand vis-à-vis others around them" (Kanno, 2000: 2).

When dealing with the term bilingualism in the context of immigration, as this study intends to do, another important distinction is between formal and spontaneous second language acquisition. Formal language acquisition is a conscious and intentional process, which cannot be compared to the acquisition of a second language through socialization circumstances. However, according to Dulay, Burt and Krashen, "language learning is a two-way street where learners are affected by their environments, but at the same time contribute something to the learning process" (1982: 39). Thus, as we have already seen, there are a number of internal and external factors influencing second language acquisition.

Bronfen and Marius (1997) describe migrancy as the ontological condition of post-modern life. Due to their mobile situation, migrants are compelled to identify with different cultural and social features. Glick Schiller claims, "Transnational migrants (...) live a complex existence that forces them to confront, draw upon, and rework different identity constructs - national, ethnic and racial" (1992: 5, quoted in Fürstenau, 2004: 161). Some authors contend that immigrant minorities experience a kind of hybrid identity characterized by a constant negotiation between ethnicity, race, religion, traditions and origins. For Fürstenau "transnational 'hybrid identities' can be understood as self-identification processes spreading across different places, which turn out not to be stable identities, as they do not resort to interpretation possibilities of closed cultures; they stay negotiable" ${ }^{11}$ (2004: 164).

Although, in the public discussion about the integration of immigrants in Western countries, this so-called "cultural split" is seen as leading to ghettoization and social exclusion, much of the current literature on the topic perceives biculturalism as a benefit in today's globalized world. As Wei puts it: "An advantage of being bilingual is having two or more worlds of experience. Bilingualism provides the opportunity to experience two or more cultures" (2000: 23).

Summing up the discussion on the definition of bilingualism, it may be asserted that "there is no generally accepted definition in research, as bilingualism is not a

[^6]consistent concept... The only common feature shared by all definitions is that they describe a situation where two languages occur" ${ }^{12}$ (Lengyel, 2001: 13).

### 1.2 Typology of bilingualism

Bilingualism has been categorized in many different ways according to a large number of factors (cf. list of types by Wei, 2000). Although this is not the main focus of this research, a few categories are perceived as important, particularly those related to the duration and kind of contact with the two languages, as relations have been found between bilinguals' linguistic proficiency and such factors. As mentioned previously, some researchers consider that the sooner a child starts acquiring both languages, the more proficient it will become. For Grosjean (1982), the brain is more flexible and able to learn before puberty, while Mahlstedt holds that children establish an emotional relation with both their languages in the first years of childhood (1996). However, many other studies have refuted such claims. Zollinger (1997), for example, argues that the best time for second language acquisition is precisely after the twelfth year, and Grosjean alleges that small children are immature learners as they lack some cognitive skills, though he does concede that "children can become bilingual at any age" (1982: 192). Other authors emphasize the role played by factors such as language use within the family and at school; the way the child's bilingualism is dealt with by the surrounding community; the prevailing attitudes towards bilingualism in general, and the degree of similarity between the two languages in question.

## Simultaneous early bilingualism

Early bilingualism or bilingual first language acquisition takes place when a child comes into contact with two parallel languages from birth (for example, when each parent speaks a different language). Studies with such children have generally concluded that this type of acquisition can cause a slight delay in some aspects of the language production, when one of the languages is more dominant than the other (Meisel et al., 2007). However, by the age of four or five, most children were found to be balanced bilinguals when possibilities to use both languages were made available, presupposing normal development (Baker, 2000b). Moreover, motivation to use the languages as well as exposure to different milieus where the languages are employed seem to play a decisive role in early bilingualism (Romaine, 1995).

This sort of bilingualism is also treated separately from the others, as some authors believe that the languages are organized differently in the brain compared to

[^7]other forms of sequential or later bilingualism. This has resulted in investigations as to how children separate their languages and, particularly, when this takes place. Some researchers argue that the two linguistic systems separate relatively early in young bilinguals (cf. separate development theory: Meisel), while others claim that the lexicon and grammar is not clearly differentiated for some time (cf. fusion theory: Volterra and Taeschner). According to the Subsystem Hypothesis of the psy-cho- and neurolinguist Paradis, bilinguals' two languages are integrated in an overall linguistic and cognitive system which also includes other unbounded subsystems; and indeed, neuro-physiological studies have provided evidence for the existence of such systems (Fabbro, 1999; Paradis, 2004).

In simultaneous bilingual acquisition, the child's main task is to differentiate between the two languages, which can be achieved through their functional and rigorous separation. However, it may also be the case that a distinction takes place due to the sociological situation in which the child lives. In many immigrant families, there is a clear distinction between the language spoken at home and outside it. In these cases, the child usually acquires the society's language through school settings. Likewise, systematic educational methods can lead to language distinction within the first three years of the child's life. Such are:

- one person - one language: this method presupposes that each of the parents speaks a different language with the child. In the majority of cases, one of the languages coincides with that spoken in the surrounding society. However, there are cases where children are exposed to two languages at home and must acquire a third language of their social setting. This can lead to trilingualism;
- language-time: this method implies an artificial language separation based on time-periods throughout the day. For example, one language is only spoken in the evening and the other in the morning;
- distinction according to place, subject, situation and person: this may occur when the child's family language is spoken by a large community, thus allowing intensive contact in different situations and places, and with a number of different people;
- no strict method: both languages are spoken by both parents without a functional separation. Normally, this causes high levels of code-switching and mixing, leading mostly to the predominance of the language of the majority.


## Sequential bilingualism

Sequential bilingual acquisition occurs when a child's second language is introduced after the first language is learned. In this case, research shows that there is usually a so-called silent period when the child is first exposed to the second language. It is mostly accepted that children who start acquiring their second language before puberty and in a so-called "natural environment" are able to speak it without an accent and achieve high proficiency in both languages. Some researchers set the
third birthday as the age when a child achieves communicative competence in the first language (Kessler, 1984). For example, when a family immigrates after their child has acquired basic competence in the family's native language and is then introduced to the second language through a preschool or school setting.

According to Wilken (2000), the skills acquired in the first language have a decisive impact in the acquisition of the second language. If both languages are equally endorsed, they can support each other in the acquisition process (Pacheco, 1983). Thus, continued input in the first language should take place in order to reduce language attrition, which can occur when the first language is abruptly replaced by a second language, leading to negative consequences for cognition and language.

Sequential bilingualism usually occurs when children learn only the language spoken within the family in their early years and come into contact with the second language in an educational institution. This may happen after three or four years of predominant contact with the native language.

## Additive and subtractive bilingualism

There are two types of sequential bilingual acquisition: additive and subtractive. Additive bilingualism occurs when a speaker acquires a second language while retaining the first (Gleason, 2005). According to Cummins and Swain (1986), the bilingual individual is adding another socially relevant language to his/her repertoire of skills at no cost to the first language competence. Lambert (1977) states that most positive studies have involved bilingual students whose first language was dominant and prestigious and in no danger of replacement by the second language. On the other hand, subtractive bilingualism occurs when the speaker loses his/her native language during the process of acquiring the second. Subtractive bilingualism often happens amongst second generation migrants, when their native minority language is replaced by that of the dominant language.

Cummins (1994) points out that additive bilingualism occurs when the first culture is valued, meaning that the first language continues to develop while the second language is added; with subtractive bilingualism, however, the second language is added at the expense of the first language and culture. The concept of subtractive bilingualism is linked to the discussion on first language attrition, defined generally as the loss of language skills by an individual over time. Paradis (1997) formulated the Activation Threshold hypothesis, arguing that there were various factors influencing language attrition, such as motivation, frequency of activation, time lapse since last activation, and level of mastery. Gürel (2004) empirically verified Paradis' theory on frequency of activation. His research demonstrated that the activation threshold was lower when a language was more frequently used. On the contrary, if the language was inactive or was not used, the activation threshold would be higher. Moreover, it was concluded that it was more difficult to activate a
higher threshold than a lower one. In short, attrition can be reduced if a language is used frequently.

When considering the situation of some immigrant communities in Germany, it can be seen that they differ from each other as regards language maintenance. However, the communities which invest in first language instruction, transmission and maintenance, and keep in contact with the home country tend to achieve the best results within German school and professional systems. Examples of this can be found amongst Greek, Spanish and Portuguese communities (Reich and Roth, 2002).

## Late bilingualism

This type of bilingualism occurs when an individual in youth (after the twelfth birthday) or adulthood changes socio-linguistic environment and learns a second language. The linguistic imbalance of both languages is in these cases often much higher than in other types of bilingualism. However, it is possible for late bilinguals to achieve high levels of proficiency in both languages. The issue of late bilingualism is, of course, strongly affected by the question of age, i.e., what is the age limit separating a bilingual and a late bilingual? Lenneberg (1967) formulated the Critical Period Hypothesis, which is still accepted by many researchers today. He claims that language acquisition is an innate process determined by biological factors, which limit the critical period from roughly two years of age to puberty, and that after lateralization (when the two sides of the brain develop specialized functions), the brain loses plasticity, affecting the ability to acquire languages. Thus, lateralization of the linguistic function would normally be completed at puberty, making post-adolescent language acquisition problematical. Learning a language as a late bilingual brings consequences for linguistic proficiency, affecting all areas of language use, such as phonology, syntax and semantics. Flege (1991), for example, compared early and late Spanish-English bilinguals with monolingual groups and found that the early bilinguals displayed no difference in their word order skills as compared to monolinguals, while late bilinguals often mixed Spanish and English word order rules. A number of other studies have been dedicated to establishing the differences in proficiency between early and late bilinguals. ${ }^{13}$

Another issue arising from the opposition between early and late bilingualism is linked to the representation of both languages in the brain. Perani et al. (1996) measured the brain activity of low proficiency late bilinguals using positron emission tomography (PET), whereby subjects listened to stories in their first and second languages, as well as in a third unknown language. He concluded that there was a more extensive activation pattern for the first language than for the second and that the activation pattern for the second language was similar to that happening for the unknown language. Later on, Perani (1998) duplicated this study with

13 Cf. Johnson and Newport, 1989 on grammar declination, Weber-Fox and Neville, 1996 on syntax and semantics and Kroll and Dijkstra, 2005 on lexicon.
high proficiency early and late bilinguals and concluded that both groups showed similar activation areas while listening to the second language. Thus, it can be concluded that proficiency, rather than age alone, is the determining factor for late bilingualism.

### 1.3 Attitudes towards bilingualism

As a bilingual myself, I have often wondered why the cognitive consequences of monolingualism have not been investigated with the same care! François Grosjean

Although attitudes to bilingualism have tended to fluctuate over time, most negative judgements tended to be found prior to the 1970s. They can go back as far as the nineteenth century, as the following statement exemplifies:

If it were possible for a child to live in two languages at once equally well, so much the
worse. His intellectual and spiritual growth would not thereby be doubled, but halved. Unity
of mind and character would have a great difficulty in asserting itself in such circumstances. (Laurie, 1890, quoted in Wei, 2000: 18)

Most advocates of such positions claimed that children are not able to cope with two languages, as this results in identity and integration problems, lack of orientation and linguistic difficulties such as stuttering. However, most of the studies that arrived at such conclusions failed to take account of family context, social conditions and attitudes towards bilingualism (Grosjean, 1982). Moreover, the focus tended to be a comparison of bilinguals with monolinguals, resulting inevitably in the conclusion that the bilinguals showed so-called deviations in relation to the norm. It was taken for granted that bilinguals were bi-monolinguals. Thus, such studies " (...) were based on false conclusions resulting from an inadequate consideration of social class differences in the comparison with monolinguals" ${ }^{14}$ (Reich and Roth, 2002: 12).

Research showing the positive effects of bilingualism is fairly recent, although some of these studies have also privileged bilinguals from the middle and upper classes, thereby failing to reflect the reality of immigration and thus offering biased results (Pacheco, 1983). However, when all the factors mentioned above were considered, studies have shown that bilinguals reveal slight cognitive advantages, particularly concerning the metalinguistic use of the languages (Stern et al., 1998). Bialystock (2004), for example, was able to prove that certain cognitive skills of bilinguals persist longer than those of monolinguals. Some authors however maintain that:

[^8]It has not been demonstrated that bilingualism has positive or negative consequences for intelligence, linguistic skills, educational attainment, emotional adjustment, or cognitive functioning. In almost every case, the research findings are either contradicted by other research or can be questioned on methodological grounds. (McLaughlin, quoted in Grosjean, 1982: 226f)

More recently other authors have argued that, when individual and social conditions are controlled, bilinguals reveal a slight cognitive advantage in relation to monolinguals (Reich and Roth, 2002).

Within bilingual groups, however, the specific case of migrant children is a special one; the attitudes towards a bilingual person are generally positive, but in the case of migrant children they remain predominantly negative. According to Jampert, "the bi- or multilingualism of immigrant children in this country is still approached from a problem-oriented perspective and perceived as a situation which brings risks and hazards for those children's development" ${ }^{15}$ (2002: 53). As regards the situation of immigrant children in educational institutions, it can be concluded that disadvantages remain and that pedagogical work is still associated with extra engagement and effort and thus seen as problematic. Therefore, the current attitude towards bilingualism is marked by ambivalence; on the one hand, it is seen as a sign of globalization and as a form of cultural capital which increases individual and professional perspectives; on the other, and especially in the field of education, it is seen as a deficit and a problem. Ulich summarized these contradictions when dealing with bilingualism in a paper about the attitudes of pedagogical staff working with groups of multilingual children:

Most respondents see bilingualism as a chance to find out about different cultures, and $82 \%$ of the interviewed professional staff believe that children can easily learn two languages if too many demands are not made on them ... As regards the problems and/or potential of achieving educational aims within the group, the impression given is that the goal of a 'bi-lingual-bicultural education' is practically absent for the group or in their educational work. The outlook of teaching professionals changes as soon as it is specifically about migrant children in the own group. In everyday life, there are such concerns about the low level of proficiency in German amongst these children that their bilingualism is not considered as a special competence and educational purpose. On the contrary, the different languages spoken by the child seem almost incompatible. ${ }^{16}$ (Ulich, 1999: 83)

[^9]The discussion about the definition of bi- and multilingualism implies an ongoing debate between several perspectives and subjects. Although, as discussed above, there is no consensus as regards most of the aspects mentioned, the term "multilingualism" is particularly in vogue (Bausch, Königs and Krumm, 2004). Politicians, teachers, sociologists, linguists and doctors, among others, make use of these concepts with a multitude of purposes, leading sometimes to conclusions and measures which affect the lives of a vast number of individuals (cf., for example, the discussion on the integration of migrants in Western countries).

The terms have even originated neologisms, which reflect their own intricacy. For example, List has coined the term "Quersprachigkeit" ${ }^{17}$ to designate "a fruitful potential to distinguish symbolic services and recognise registers, to make a distinction between them, to mix them if possible and to use them alternately and to act straight through them" ${ }^{18}$ (2001: 133). This postmodernist concept describes the dynamic of language use as active capital which can be deliberately applied to serve given purposes in different contexts.

Hence, it can be concluded that:
Bilingualism is not a static and unitary phenomenon. Rather, it is shaped in different ways, and changes in accordance with a variety of historical, cultural, political, economic, environmental, linguistic, psychological and other factors. People's attitudes towards bilingualism will also change as society progresses and as our understanding of bilingual speakers' knowledge and skills grows. However, one thing is certain: more and more people in the world will become bilinguals, and bilingualism will stay as long as humankind walks the earth. (Wei, 2000: 25)

## 2. Multilingualism in Germany

According to Wolff, multilingualism has become a political goal and a political necessity in Europe (2002). The Maastricht Treaty guaranteed the preservation of linguistic and cultural diversity within Europe, thus creating one of the main paradoxes in European history; the belief that European Union can only be achieved through the maintenance of Diversity - antonyms that determine the unity in 27 different nation-states. This paradoxical if idealistic goal impacts upon Germany's ideology.
wärtig und zum Teil so bedrückend, daß deren Zweisprachigkeit als besondere Kompetenz und als Erziehungsziel wenig greifbar sind. Im Gegenteil: die verschiedenen Sprachen beim Kind erscheinen fast unvereinbar."
17 "Quer" means "across" and "sprachigkeit" would be equivalent to the English "lingualism." The term derives from "Mehrsprachigkeit" ("multilingualism") and roughly means across languages.
18 "Ein fruchtbares Potential, die symbolischen Dienste unterscheiden und Register zu erkennen, zwischen ihnen zu unterscheiden, sie womöglich selbst zu mischen und abwechselnd zu benutzen und quer durch sie hindurch zu handeln."

Although the reaction of German infrastructures to the rising number of migrants only started in the 1970s, migration to and from Germany is in fact a very old phenomenon. According to Krüger-Potratz:

Since the Federal Republic started to be seen as a country of immigration,... it has been pointed out that migration is by no means a new phenomenon, but that historically and in the present ... people of foreign origin have influenced Germany's cultural development. (KMK 1996) ${ }^{19}$ (2005: 63).

Indeed, multiculturalism, multiethnicity and multilingualism in German society are not a recent trend but have been evident at different moments throughout its history (Gogolin, Neumann and Roth, 2003b). Examples include the integration of the Huguenots and Dutch citizens into Prussia during the $17^{\text {th }}$ century and of the Poles in the $20^{\text {th }}$ century "Ruhrgebiet" (see Glossary, p. 290).

However, the present linguistic and cultural diversity in German society is predominantly due to migrational movements caused by the end of the Second World War. Given the historical circumstances, the destination for this immigration was of course the Western states, particularly urban areas. Attempts to determine the origin and distribution of migrants have usually used two criteria: nationality, and ethnic background, as determined by factors such as language use and nationality of parents and grandparents. As regards the first of these factors, immigrants with foreign nationality are mostly concentrated in Hamburg (where they account for $14.2 \%$ of the population), Berlin (13.9\%), Bremen (12.7\%), Baden-Württemberg (11.8\%) and Hessen (11.3\%). The states with least migrants are Thüringen (2\%) and SachsenAnhalt (1.9\%) (cf. Statistische Ämter des Bundes und der Länder, 2006).

Currently, most migrants belong to the groups known as "Aussiedler" (see Glossary, p. 289) and "Spätaussiedler" (see Glossary, p. 291), which represent one third of all migrants. Another third is accounted for by relatives of German citizens returning or coming to Germany with or without a background of migration, and other foreigners married to German citizens. The third large migrant group consists of refugees and asylum seekers who have often resided in Germany for some time. Other sources include citizens of European Union countries, of all kinds, and seasonal workers from other countries. Students and academic staff are also a growing source of immigration into Germany.

As regards the origins of the migrants living in Germany, the largest group, totalling almost two million people, is made up of foreigners from European Union member states, which has constituted a stable group since the mid-1980s. The second largest group is of Turkish origin, which in 2005 accounted for $26.6 \%$ of all foreigners ${ }^{20}$ (this particular migration flow has slightly decreased since the mid

[^10]1990s). Table 1 shows the nationalities and numbers of foreign citizens in Germany. The most frequent nationalities of foreign citizens living legally in Germany are listed below.

Table 1 - Nationality and number of foreign citizens in Germany.

| Nationality | Total | \% |
| :--- | :---: | :---: |
| All nationalities | $6,717,115$ | 100 |
| Turkey | $1,764,318$ | 26.3 |
| Italy | 548,194 | 8.2 |
| Serbia and Montenegro |  |  |
| Greece | 507,328 | 7.5 |
| Poland | 315,989 | 4.7 |
| Croatia | 292,109 | 4.3 |
| Russian Federation | 229,172 | 3.4 |
| Austria | 178,616 | 2.7 |
| Bosnia and Herzegovina | 174,047 | 2.6 |
| Ukraine | 155,973 | 2.3 |
| Portugal | 128,110 | 1.9 |

(Source: Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung, 2005: 174)

However, for the purpose of educational and social studies, these nationality-based statistics are less valid, as they do not include those migrants who have acquired German nationality. As mentioned above, the "Aussiedler" group currently accounts for one third of all migrants and most have already acquired German nationality. In order to attain figures which can be used in educational studies, it is necessary to consider the second factor mentioned above to determine both origin and linguistic background of the migrants; their family background must be determined, as well as their linguistic habits in everyday life. In 2001, official statistics for the Hamburg region indicated that $20 \%$ of school children did not have German nationality, but in a study of $9^{\text {th }}$ grade students conducted by Lehmann (2001), 28.4\% reported that they spoke a language other than German at home. Thus, "the number of children for whom a language other than German probably plays a significant role is substantially higher than those of the children without a German passport",22 (Fürstenau, Gogolin and Yağmur, 2003: 25). Even more discrepancies were found in a study of Hamburg primary school children, where up to $35 \%$ indicated that they spoke another language at home (cf. idem). Additional surveys have supplied data about the actual linguistic diversity in some German urban areas; in Hamburg and Essen, for example, there were about 100 different languages.

Taking into account the expansion of the European Union and other demographical and sociological factors (Nauck, 2003), it has been estimated that immigration to Germany will increase over the next fifty years (Gogolin, Neumann and

[^11]Roth, 2003b), producing even more linguistic diversity. But what sort of multilingualism is experienced by the migrants in everyday life? What consequences does it have for politics, institutions and education?

### 2.1 Multilingualism and immigration

Es ist langfristig damit zu rechnen, dass Kinder mit Migrationshintergrund in Formen von Zweisprachigkeit (das kann auch heißen: mit vielen Sprachen) aufwachsen und leben. Ingrid Gogolin

In order to understand the sort of bilingualism experienced everyday by migrant children, it is necessary to discuss the two main factors characterizing it: linguistic maintenance and vitality. We should also bear in mind that bilingualism will shape our future and that there are already ten million bilinguals in Germany alone (Reich and Roth, 2002).

Studies have shown that trends in immigration policies have changed in the last few decades. In the recent past, it was assumed that the linguistic and social assimilation of immigrants would take place naturally within two generations, three at the most. However, nowadays it is generally accepted that the concept of assimilation is problematic per se, as mentioned above, and that it is also unrealistic in the light of the daily reality of bilinguals. Some important factors to be considered are listed below, compiled from several different studies (cf. Deutsches PISA-Konsortium, 2001; Reich and Roth, 2002; Bos et al., 2003; Fürstenau, Gogolin and Yağmur, 2003; Chlosta, Ostermann and Schroeder, 2003; Gogolin, 2005):

- over $90 \%$ of immigrant families preserve their home languages in several forms;
- most also use German within the family, although the extent of this varies enormously from case to case;
- about $30 \%$ of parents use only their home language when addressing their children;
- 15 to $20 \%$ of siblings use their home language exclusively when communicating with each other;
- $90 \%$ of the interviewed migrant children in the PIRLS/IGLU-Study and $70 \%$ in the PISA-Study were born in Germany or immigrated before the age of three;
- younger generations are normally more proficient in German than first generation immigrants;
- high attendance of home language classes is an indicator for home language maintenance and vitality;
- the amount of home language use is broadly related to the size of the groups of speakers of this language, although there are a few exceptions to this rule.

Such data from different studies allows us to formulate a number of meaningful conclusions about the sort of bilingualism experienced by immigrant children in

Germany. First of all, the fact that in studies like PISA or PIRLS the great majority of children were born in Germany or immigrated while very young, but nevertheless use their home languages daily, demonstrates that a sort of natural linguistic assimilation does not take place and that linguistic diversity does not necessarily disappear in the second and third generation. On the contrary, a great deal of the daily communication of bilingual children takes place in their home language, particularly when they belong to one of the minorities with a large number of speakers. This linguistic loyalty is sustained by the offer of home language classes, either supported and organized by the German school authorities or prepared by the minorities themselves. In the study from Fürstenau, Gogolin and Yağmur (2003), for example, it became apparent that language maintenance also takes place unnoticed or unrecognised by the host community. Most of the Chinese-speaking children interviewed mentioned the fact that they could also read and write in Chinese, although Chinese home language courses are not offered by the Hamburg education department. Hence, it can be concluded that minorities find their own ways of maintaining the vitality of their languages, including within the second generation, and when this is not officially sustained by the host community. In the case of minority languages which at the same time are national languages in Europe (Greek, Italian, Portuguese and Spanish), the rate of home language class attendance lies between 51 and 92\% (Reich and Roth, 2002).

In the study mentioned above, a language vitality index (LVI) was calculated for each language. The twenty languages with the highest LVI were: Romanian, Urdu, Turkish, Armenian, Russian, Serbo-Croatian/Bosnian, Albanian, Vietnamese, Chinese, Arabic, Polish, Somalian, Portuguese, Berber, Kurdish, Spanish, French, Italian, English and German. This proves that the group with the highest vitality index is actually one of the smallest minorities in Germany, meaning that in some cases language maintenance also takes place within smaller speaker groups. This language vitality is supported by the increase in access to media sources from all over the world, though the use of internet and other technical means, widely available nowadays. Moreover, the increase in personal mobility thanks to the surge in low-cost airlines facilitates contact with the home country, easily transforming migrant groups into transmigrants. According to Fürstenau:
the new type of migration movements merges with the concept of transnational migration, which above all means constant mobility; transmigrants organizing their lives permanently plurilocally. ${ }^{23}$ (2004: 155)

Another important factor for language maintenance and vitality is religious affiliation. Research from Canada and the USA has shown the close links between language and religion (Gogolin, 2005). However, in all linguistic situations in the mul-

[^12]tilingual context, the role of the German language is never challenged; that is to say, the home languages spoken by immigrant minorities co-exist with German, rather than replacing it (Gogolin, Neumann and Roth, 2003b).

This multilingual situation experienced by migrants has been termed by Gogolin (1988) "lebensweltliche Zweisprachigkeit" ${ }^{24}$, meaning that the language use of these groups is marked by the daily switching between two or more languages, acquired in a migration context. The sort of bilingualism experienced by migrants is mostly considered by the host community to be problematic and defective. Compared to the kind of proficiency demonstrated by monolinguals, migrants are often considered to display a kind of "semilingualism," or rather "double semilingualism," where both languages are acquired incompletely when compared to the monolingual norm. The notion of double semilingualism was imported from the Scandinavian discussion on semilingualism (in Swedish "halvspråkighet" and German "Halbsprachigkeit") and was immediately adopted in the public discourse on migrants' linguistic performance of the host language. According to Hinnenkamp:

As a result of language testing, it was argued that semilingualism was expressed through a limited vocabulary, incorrect grammar, and difficulty in expressing abstract concepts. However, its primary function was not to explain things, but to explain things away" (2005: 4).

He adds:
This notion has achieved a certain consensus amongst both academics and laymen, though it is a fuzzy concept that is defective in many respects; it is, however, useful as it appeals to the need to do something to halt its detrimental consequences. Thus, semilingualism and double semilingualism have also become a kind of weapon, a political weapon that can be used to pressurize institutions and authorities that have left children in this state of linguistic 'inbetweenness'". (Idem).

The concept of "lebensweltliche Zweisprachigkeit", on the other hand, avoids such a problem-oriented perspective by considering the linguistic development and situation of immigrant minorities as normal. Gogolin (1998: 40f) identifies three main characteristics of bilingual language acquisition in migration contexts:

- the home language is acquired as a so-called "Migrantensprache" (migrant language), meaning that it is a language variant influenced by migration and by the multilingual surroundings and is thus different from that spoken in the country of origin;
- the language of the host community is not acquired as a mother tongue and in most cases only through institutional means, which means that it is subject to linguistic interferences;

24 The concept of the "Lebenswelt", in Husserl's phenomenology, refers to the human world as prescientific self-evident fact, the world of primary experience as opposed to the more theoretical scientific world view. Thus, "lebensweltliche Zweisprachigkeit" might be approximately translated into English as "self-evident bilingualism."

- migrant children acquire their languages in a multilingual context, where different languages in different registers and variations are used daily. The resulting code-switching and interferences are thus normal and a sign of flexible linguistic application.

Taking all these factors into consideration, how can institutional and political authorities deal with this sort of language diversity and vitality? How does this affect the German education system?

## 3. Multilingualism in the German school system

Kinder und Jugendliche, deren Erstsprache nicht Deutsch ist, sind unter Achtung ihrer ethnischen und kulturellen Identität so zu fördern, dass ihre Zweisprachigkeit sich entwickeln kann und ihnen eine aktive Teilnahme am Unterrichtsgeschehen und am Schulleben ermöglicht wird. (Hamburgisches Schulgesetz; Absatz 3; 2001) [emphasis of the author] Kinder und Jugendliche, deren Erstsprache nicht Deutsch ist, sind unter Achtung ihrer ethnischen und kulturellen Identität so zu fördern, dass ihnen eine aktive Teilnahme am Unterrichtsgeschehen und am Schulleben ermöglicht wird. (Hamburgisches Schulgesetz; Absatz 3; 2003)

In Germany, as in many immigration countries, the level of school achievement of migrant children is strikingly lower than that of monolingual German students. In the school year 2000/01, for example, $20.3 \%$ of students from migrant backgrounds left school without any qualifications, and $40 \%$ failed to attain more than the "Hauptschule" graduation certificate (see Glossary, p. 290). As regards their entrance into the job market, the number of professional apprenticeships has decreased in recent years, from $9.6 \%$ in 1996 to $7.1 \%$ in 2000 (Neumann, 2003).

The situation is aggravated by the appalling results revealed by the PISA-Study. In no other country is the relation between social class and students' performance as marked as in Germany (Deutsches PISA-Konsortium, 2001). Most fifteen-yearolds with one parent born abroad displayed almost no difference in relation to their German peers. But the situation with regards to youngsters whose parents were both foreign was considerably worse. Almost $50 \%$ of these students are unable to go beyond the basic performance level in reading comprehension, although $70 \%$ of them completed their entire education in Germany.

Migrant children are also more likely to have to repeat a school year than monolingual German children; indeed, they are four times more likely (Auernheimer, 2005). In the PISA-Study, $24 \%$ of all bilingual 15 -year-olds had repeated a school year at least once (Deutsches PISA-Konsortium, 2001). Moreover, in the tripartite German educational system, the risk of being downgraded is much higher for migrant children; $35 \%$ of the youngsters examined for the PISA-Study mentioned having to change from a "Gymnasium" to a "Realschule" (see Glossary, p.
290) or from here to a "Hauptschule," which corresponds to an educational decline. As claimed by Auernheimer (2005), many of the pupils associated school with experiences of failure.

The results of the PIRLS/IGLU-study into migrant children are shown in Figure 1.


Figure 1 - Performance in reading, mathematics and science of children with and without a migration background (Bos et al., 2003: 285).

According to Bos et al. (2003), the differences between the highest and the lowest performance levels are less marked in the IGLU/PIRLS-Study than in PISA. Auernheimer (2005) notes that the results for the German educational system are similar to those for Sweden, and that IGLU shows that the pupil's achievements diverge less at the end of primary school than at the end of the first phase of secondary education (at 15), when there is a difference of about 55 points between pupils with and without a migration background. These results show that that the relationship between school performance and social class becomes more marked at secondary level.

What happens after primary school to the different student groups? How does the German educational system respond to heterogeneity and diversity?

### 3.1 The role of the education system for integration

A country's educational system plays an undeniably important role in the integration of its migrants, at both social and individual level. For Geißler:

If one considers that integration means providing equal opportunities to participate in the life of the host society ..., then educational opportunities are crucial for this process. Education is the central resource to enable participation in the economic, social, political and cultural life of the country. ${ }^{25}$ (2005: 89)

[^13]From a social perspective, education contributes to stability by attempting to establish social justice and equality. As stated by Neumann:

Education also plays an important role on the social level, ensuring the optimal use of human resources. Hence, children, considered as human capital, should be given the best possible education in order to allow them to attain a competitive advantage in the world market. ${ }^{26}$ (2003:3)

However, in most cases, the educational system today tends to reproduce social inequality. Solga claims:

Individual success in the education system (symbolized and institutionalized by the school career as well as by formal qualifications) is experienced today as a legitimate basis for the distribution or allocation of opportunities. ${ }^{27}$ (2005: 19)

Thus, it might be assumed that if an individual makes enough of an effort, $\mathrm{s} / \mathrm{he}$ will stand a reasonable chance of attaining higher school results. However, the circumstances of different individuals must be taken into consideration before they even enter the educational system. Vester states:

Sociological and educational research has long provided empirical evidence that children enter the education system with unequal social and cultural 'start capitals' and that they 'are gradually sorted' there in accordance with their social origins and steered into the labour system, which is similarly socially graded. ${ }^{28}$ (2005: 39)

At the individual level, education contributes to the development of a child's personality and as such, is a basic constitutional right, which should be available to all children equally. However, as noted by Neumann, "the German educational system is far from granting equal social opportunities and chances to migrants as a minority within society",29 (2003: 10).

### 3.2 The German educational system and "Bildungsbenachteiligung"

In all immigration countries, the educational achievement of migrant children is an issue which is often examined in relation to their linguistic situation. However, be-

26 "Ebenfalls auf der gesellschaftlichen Ebene liegt die Funktion von Bildung, die menschlichen Ressourcen optimal zu nutzen, also die Kinder, betrachtet als Humankapital, optimal auszubilden, um so einen Wettbewerbsvorteil auf dem Weltmarkt zu erlangen."
27 "Der individuelle Erfolg im Bildungssystem - symbolisiert und institutionalisiert in Schul- und Ausbildungslaufbahnen sowie erworbenen Bildungszertifikaten - wird heute als legitime Grundlage der Ver- bzw. Zuteilung von Lebenschancen angesehen und erfahren."
28 "Die soziologische Bildungsforschung bringt seit langem immer neue empirische Belege dafür, dass die Kinder mit ungleichen sozialen und kulturellen 'Startkapitalen' in das Bildungssystem eintreten und dort dann nach ihrer sozialen Herkunft schrittweise 'sortiert' werden, dass sie überwiegend in das ebenfalls sozial gestufte Berufssystem gelenkt werden."
29 " (...) [D]as Deutsche Bildungswesen ist weit davon entfernt, Migrantinnen und Migranten als gesellschaftlicher Minderheit soziale Chancengleichheit und -gerechtigkeit zu gewähren."
yond language, many other factors can influence the school performance of such groups, such as discrimination, conflict or school selection mechanisms. In the German case, the term "Bildungbenachteiligung" ${ }^{30}$ has been used to address the fact that certain groups of children or adults within the educational system have less chance of achieving an educational goal than others. It is used mainly to refer to the fact that people with fewer social, financial and cultural resources seem to be less able to acquire a certain educational level, although equal opportunities are formally available. This concept does not imply intentional or deliberate discrimination; rather, these groups are statistically disadvantaged as regards the distribution of educational opportunities and educational achievement. In the past, it was believed that the expansion of the educational system would reduce social disparities. But equal opportunities have not really been achieved, as was pointed out in the 1960s by Pierre Bourdieu and in the ' 70 s by Jean-Claude Passeron. According to Geißler, the debate about education and social inequality (already an important theme in the 1960s) has again been brought into the spotlight by the results of international comparative school achievement studies such as PISA. He labels the development of the German educational system in the last fifty years as "paradoxical" and describes it as providing "more educational opportunities, but fewer equal opportunities" ${ }^{31}$ (2005: 74). The literature on inequality and education within the German context suggests five main causes, resulting from the system rather than the individuals.

## Tripartite secondary education system

Although there is a huge range in the type and amount of human, cultural and economic capital brought by pupils entering primary school, the separation of the German education system into three main school types after primary school is considered by some authors to cause social segregation and inequality. As has already been mentioned with relation to Bos et al. (2003), the gap between allochton and autochthon students in reading comprehension is broader in the PISA-Study than was the case in IGLU/PIRLS. This attenuation of development in reading proficiency can be linked to the transition to the tripartite school system which acts as a segregation mechanism. According to Vester:

Even in elementary school, teachers have an acute perception as to the class backgrounds of the children in their charge; while coordinating activities such as speaking, reading and writing, it becomes clear whether the child is from a cultured or uneducated background, and the teachers use this knowledge to make predictions about the child's future, including their recommendations for secondary education. ${ }^{32}$ (2005: 64)

[^14]Although the system ought to be transparent and allow mobility between the different school types, the separation that takes place at the end of primary school reproduces existing social structures, thereby perpetuating social inequality. Auernheimer summarises the situation as follows:

> The fact that there exists little connection between academically ascertained competence levels and the transitional recommendations provided by elementary schools throws the current school system into a questionable light. Both the international comparative PISA-Study and IGLU show an overlap between achievement and the dispersion of competence steps ... This shows that the means of selection used in our education system is by no means as adequate and rational as is generally believed and as education ministers make it out to be. ${ }^{33}$ (2004: 7)

The tripartite school system has several consequences. Firstly, it produces a negative effect on the learning behaviour of students, as teachers' expectations in relation to the students' results influence their performance (i.e. the lower the expectations, the lower the school achievement). Twice as many migrant children as German children are sent to "Sonderschulen" (see Glossary, p. 291) (Kornmann, 2006) and they represent $40 \%$ of the student population in "Hauptschulen" (Geißler, 2005); this means they are more exposed to teachers' lower expectations in relation to their performance. Secondly, the clustering of weak students together reduces the general level of performance. Studies have shown that weak students benefit from heterogeneous learning environments, without having a negative impact on the performance of the stronger students (Brügelmann, 2003). Finally, the separation into different schools creates an image of a social structure in which migrants occupy the lowest positions, as they are over-represented in "Hauptschulen" and underrepresented in "Gymnasien". This also affects their motivation to improve their performance, as "Hauptschulen" are considered by many to be the first step towards unemployment or unskilled occupations.

## Socioeconomic status and cultural capital

Some studies have associated the performance disparities between German and migrant children with socioeconomic factors. Zinnecker and Stecher (2004) examined the professional and educational status of the parents and concluded that an important factor influencing immigrant children's performance is the educational capital

[^15]of their parents. However, this is also true for monolingual German children. Other studies controlled the economic status of the families and found that the difference in performance between migrant and German children was reduced but still prevailed (Baumert and Schümer, 2001). Thus the reasons for differences in school achievement must also be related to specific factors deriving from migratory circumstances.

The concept of "Unterschicht" ${ }^{34}$ (Hoffmann-Nowotny, 1973) refers to a population grouping comprising the lowest social stratum in terms of material, cultural and social resources, as well as social prestige. The immigration of workers to Western industrial countries has led to a new dimension of social inequality. According to Castles and Kosack (1973), in all European countries, migrants occupy the lowest levels in the workplace hierarchy, thereby increasing social stratification. Thus, West-European industrial societies have become ethnically "unterschichtet" (underlayered). Esser has identified three causes for this ethnic "Unterschichtung"; exclusion of groups which do not possess capital; competitive disadvantages in different markets (such as the labour market; and finally, exclusion through the informal system of prestige, which closes the doors to members of outsider groups (2001b). Gordon (1964) has shown, in the case of the USA, that ethnic stratifications usually become stable over a longer period of time and that the stability of ethnic stratification also appears in generational sequencing. However, Seifert claims, for the German context, that "the second generation is better positioned in Germany professionally than the first one (...); nevertheless, there is no even distribution in the job market overall" ${ }^{, 35}$ (2000: 161).

## Institutional discrimination

A number of studies have considered the lower educational achievement of minority students not as an isolated problem concerning a marginal group of students, but rather as a structural feature of the German educational system (that is to say, the result of the high level of origin-related selectivity). Particularly at the thresholds of the system, the functional logic of selectivity favours what has been termed "institutional discrimination" (Castells, 1998; Gomolla and Radtke, 2002). However, even before the work of Gomolla and Radtke, it had already been proved that schools make discriminatory decisions based on a family's educational level. Lehmann et al. (1997), for example, proved in the Hamburger LernausgangslagenStudie (LAU 5) that teachers required higher test results from pupils with a lower familiar educational level in order to give a recommendation for a "Gymnasium" than for pupils from families with a higher educational level. Thus, the tripartite school system in fact facilitates this structural discrimination by delegating deci-

[^16]sions concerning individual school careers to the teaching staff. Auernheimer notes that these decisions may be well-intentioned but have objectively discriminating consequences. He claims:

The family's social background and the informal support potential it provides are apparently the main factors underlying such decisions. This explains, among other things, why children from a disadvantaged social background are expected to achieve above-average grades in order to be recommended to a "Gymnasium", unlike the children of academics. ${ }^{36}$ (2004: 9)

Institutional discrimination, however, does not only operate at the threshold between primary and secondary education. According to Gomolla (2003), migrant children are also over-represented at "Sonderschulen", and often have to repeat a year at kindergarten due to their lack of proficiency in German. As mentioned above, studies have shown that students with German as their second language must repeat school years much more often than monolingual German children with comparable reading performances (Radtke, 2004).

Another aspect of the German school system that reinforces institutional discrimination derives from the fact that many schools function only in the morning ("Halbtagsschulen"), leaving most pupils with their afternoons free of schoolwork.

The selective effect of the German education system is further reinforced (compared to other countries) by the fact that half-day schools leave pupils from culturally-disadvantaged backgrounds to themselves in the afternoons, while their middle-class colleagues are trained in every aspect for a successful career. ${ }^{37}$ (Auernheimer, 2004: 10)

Geißler (2005) sums up this discussion by stating that German schools are ill-prepared (compared to other school systems) to deal with the specific learning difficulties of migrant children. The PISA-Study in 2001 showed that the reading proficiency of immigrant children is much lower in Germany than in most other countries.

## Proficiency in German

The German PISA consortium comments that proficiency in the German language at a grade-appropriate level is considered a decisive factor for school achievement amongst migrant children. This had previously been confirmed by several earlier studies (Alba et al., 1994; Gogolin and Kroon, 2000). However, the PISA results proved that reading proficiency in German also cumulatively influences achieve-

[^17]ment in mathematics and the natural sciences (Baumert and Schümer, 2002). Migrant pupils whose reading proficiency and socioeconomic background are similar to those of monolingual German are more frequently found in "Realschulen" and "Gymnasien." This means that the educational aspirations of these groups are more easily accomplished when German language proficiency is at a grade-appropriate level.

The special situation of the so-called "Seiteneinsteiger" (pupils who attended school in their home countries before entering the German educational system) brings another dimension to the language issue. In the second PISA-Study (2006), these students achieved better results than migrant children who went through the whole German school system. At first sight, this seems contradictory, as those children had less contact with the German language. However, on the basis of these results, one question comes to mind: What sort of language is needed to be successful at a grade-appropriate level? And what factors influence it?

For Siebert-Ott, "a decisive factor for educational achievement is the acquisition of the standard language (close to writing) or the technical language increasingly used within the classroom" ${ }^{38}$ (2006: 148). In fact, as Cummins (1979a) had already noted, that failure to acquire a school-specific register in the second language had been identified as the reason for the relatively low school achievement of migrant students. According to Gogolin (2006: 40f):

The German school system apparently fails more markedly than other educational systems to provide that specific linguistic competence that is the conditio sine qua non for educational achievement. It is about the mediating role played by the German language - not the language of everyday life or entertainment, but rather the language of school [italics in the original]. ${ }^{39}$

The role of language for school achievement will be further discussed in the following chapter.

## Monolingual classrooms in multilingual schools

The notion of linguistic and cultural uniformity among a people arguably informs the structures, forms and contents of European school systems and it can be shown that this issue has impacted significantly on the theory and methodology of educational research (cf. Gogolin, 1994 for the German; Vermes, 1998 for the French, and Kroon and Vallen, 1994 for the Dutch example). However, as the classical concept of the nation-state becomes obsolete, there is increasing insistence on lan-

[^18]guage uniformity and proficiency within the German school system. According to Gogolin (1994), the conviction that monolingualism and cultural homogeneity in society and the school system is the only legitimate normality is a characteristic of nations as such. The notion of nation in Europe includes a monolingual and monocultural worldview.

This fixation on linguistic homogeneity is highly paradoxical in the present urban school landscape. That is to say, the prevailing mindset in multilingual cities and contexts is that the monolingual classroom is the norm. As Gogolin claims, this monolingual self-understanding corresponds to a moment of lethargy amongst educational institutions, which needs to be overcome in the multilingual context. The nationalistic self-image of the education system is reflected in the monolingualism of the national language.

What are the consequences of this mindset for the German school system? How can it deal with diversity?

### 3.3 Implications for the German education system

Let us look at some of the regional differences in the distribution of home languages in Germany, with a view to answering some of these questions. Table 2 shows the ten most spoken languages in Hamburg, Essen and Rheinland-Pfalz. These data show that, despite regional differences, some languages (such as Turkish, Russian, Polish and Arabic) are present in all three states. More precisely, $80 \%$ of the children in Hamburg speak the same ten to twelve languages and $90 \%$ actually speak one of the twenty most common languages in Europe, as revealed by a study conducted in six European cities. ${ }^{40}$ Thus, the languages which play an important role in Germany are also significant in the European context. In Roth's (2005) study, $93 \%$ of the multilingual children speak one of the twenty most frequently mentioned languages. Such results are particularly important for educational language politics, as they show that the consideration of home languages is of great importance.

The same study has also shown that the maintenance of home languages does not imply decreased interest in the acquisition of the host communities' languages. In fact, linguistic minorities were not particularly isolated or segregated due to maintenance of their home languages. The case of Portuguese and Greek migrants illustrates that social and linguistic integration in the host country is more successful when the immigrants simultaneously invest in the maintenance of their home languages, especially when educational possibilities are on offer.

40 The twenty most frequent languages are: English, Arabic, Portuguese, Italian, Turkish, Spanish, German, French, Chinese, Kurdish, Albanian, Polish, Russian, Berber, Serbian/Croatian/Bosnian, Vietnamese, Somalian, Urdu/Pakistani, Armenian, Romani/Sintitikes (Fürstenau, Gogolin and Yağmur, 2003).

Table 2 - Distribution of the most spoken languages in three German regions (based on Roth, 2005).

| Hamburg | Essen | Rheinland-Pfalz |
| :---: | :---: | :---: |
| Turkish $30 \%$ | Turkish $27.2 \%$ | Russian $36.8 \%$ |
| Polish $10.5 \%$ | Arabic $13.9 \%$ | Turkish $19.8 \%$ |
| Russian $10.1 \%$ | Polish $12 \%$ | Polish $5.9 \%$ |
| English $6.6 \%$ | Russian $4.9 \%$ | Italian $5.3 \%$ |
| Dari/Pashto $5.9 \%$ | English $3.4 \%$ | English $4.5 \%$ |
| Farsi $5.6 \%$ | Kurdish $2.8 \%$ | Albanian 4.2\% |
| Serbo-Croat/Bosnian $3.5 \%$ | Italian $2.7 \%$ | Serbo-Croat 4.2\% |
| Arabic $2.9 \%$ | Greek $2.3 \%$ | Arabic $2.3 \%$ |
| Spanish $2.7 \%$ | Spanish $2.3 \%$ | Vietnamese $1.4 \%$ |
| Albanian $2.5 \%$ | Serbo-Croat $2.3 \%$ | Portuguese $1.4 \%$ |
| Portuguese $2.3 \%$ | Tamil $2.2 \%$ | Spanish $1.4 \%$ |

This claim is supported by the report entitled "On integrating immigrants in Europe through schools and multilingual education" approved by the European Parliament. One of the reasons for native language instruction indicated in this report is that:
... linguistic separation of the family and school environments aggravates the tendency for pupils to drop out of school and for their families to become isolated from the community, and linguistic integration therefore needs to start early, at preschool age; whereas the measures to be promoted to that end should enable immigrant children on the one hand to continue to develop their mother-tongue language skills - since this is crucial for their future progress in school - and secondly to learn the languages of their respective host countries. (Portas, 2005: 4)

## 4. Multilingualism, education and cultural capital

On voit bien justement à l'exemple de la position politique sur l'immigration l'hypocrisie des socialistes français: leur politique vis-à-vis des immigrés entrés illégalement en France a été exceptionnellement dure, et ils ont répondu aux manifestations dans les banlieues par une répression des plus cinglantes. Aujourd'hui, la police de l'immigration effectue partout dans les écoles des contrôles sévères mais pour l'intégration des gens, ils n'ont absolument rien fait. Il y a dix ans, j'ai critiqué l'hypocrisie de Mitterrand quand il a dit aux immigrés: «Vous êtes ici chez vous!». Chez vous? Sans carte d'identité, sans rien?

Pierre Bourdieu ${ }^{41}$
As already mentioned, the creation of proficient speakers of several languages has become a political goal within the European Union, as well as being expedient for everyday communication (Wolff, 2002). However, the situation of many bilinguals indicates that their linguistic skills are not yet acknowledged as valid capital within a given society. Gogolin (1988) notes that this sort of "lebensweltliche Mehrspra-

[^19]chigkeit" in Germany is still not accepted by educational institutions as a positive feature of bilinguals. Furthermore, Fürstenau (2004) points out that access to standard and written language, which she terms "elaborate multilingualism," cannot be achieved by all migrants and, when this is the case, it is often still not acknowledged by the school.

Similarly, Bourdieu (1990) believes that heritage languages have a lower social status than a country's standard language, partially due to the fact that the educational system does not acknowledge these skills. In his theory on the linguistic market, he mentions that power relations within a given society are also reflected in relations of interpersonal communication, thus transforming the linguistic market into the place where language practices are evaluated. Considering that the standard or legitimate language has the highest status, the other existing languages within the social space can only be legitimized through educational institutions. This theory on the linguistic market derives from the application of Bourdieu's sociological perspective on the economic field, contradicting the classical view whereby economic power matches social power (1997). Contrarily, his aim was to develop a general science of economic practices, where the notion of economy includes an evaluation of the role of cultural practices. Hence, social inequality is not explained only through the absence of economic capital but through an identification of the set of practices of a given society. Such practices are not easily identifiable and despite having an economic character, they are not acknowledged as such in social life.

Bourdieu's theory on class stratification has proved to be relevant in the discussion on multilingualism. He considers that class stratification takes place in a multidimensional social space, based on aesthetic taste while being defined by the amount of capital one possesses. Capital, not being merely economic, can also be cultural or social. In Distinction: A Social Critique of the Judgement of Taste (1984), Bourdieu claims that the way in which one chooses to present one's social space or aesthetic dispositions defines one's status and sets up a distance in relation to other groups. Furthermore, he hypothesizes that these dispositions are internalized at an early age, guiding the young towards their pre-assigned social positions. Hence, class fractions are determined by a combination of the varying degrees of social, economic, and cultural capital. In The Forms of Capital (1986), he explains this distinction. While economic capital is defined in the classic way as possession of economic resources (cash, assets, etc), social capital implies resources based on group membership, relationships, influence and support networks. However, he emphasizes the dominance of cultural capital by stating that "differences in cultural capital mark the differences between the classes" (1984: 69). Cultural capital includes forms of knowledge, skills and education transmitted within families and reinforced by education, which means that its acquisition greatly depends on "total, early, imperceptible learning, performed within the family from the earliest days of life" (idem: 477). He asserts the primacy of social origin and cultural capital by
claiming that both social and economic capital, although acquired cumulatively over time, depend upon it. He summarizes the situation as follows:

One has to take account of all the characteristics of social condition which are (statistically) associated from earliest childhood with possession of high or low income and which tend to shape tastes adjusted to these conditions. (Idem: 177).

Cultural capital is comprised of three subtypes: embodied, objectified and institutionalized (1986). The embodied state denotes a situation whereby cultural capital is embodied in the individual, and it has both inherited and acquired properties (inherited not in the genetic sense, but rather in the sense of socialization within the family through cultural traditions). The objectified state includes cultural goods which can be owned, such as scientific instruments or works of art. These can be transmitted physically as an exercise of economic capital, as well as symbolically as cultural capital. The institutionalized state describes the institutional acknowledgement of the cultural capital held by an individual, most often understood as academic credentials or qualifications. This is mainly relevant when related to the labour market, as it allows easier conversion of cultural into economic capital, by guaranteeing the corresponding monetary value to a certain institutional level of achievement.

At the centre of Bourdieu's sociological work is the notion that social agents do not constantly calculate according to explicit rational and economic criteria. On the contrary, they act in accordance with an implicit practical logic, imposed by the specific field in which they are integrated, and dispositions, acquired over time through family and school education. So, for Bourdieu, the modern social world is divided into different fields. The differentiation of social activities leads to the constitution of various, relatively autonomous, social spaces in which competition centres around particular types of capital. These fields are dealt with on a hierarchical basis and their dynamics arise out of the struggle of social actors to occupy the dominant positions within the field. Hence, instead of analysing societies in terms of classes, Bourdieu (1992) uses the concept of "field", defined as "a social arena in which people act and struggle in pursuit of desirable resources". The field and the actions of the agents are determined by a system of acquired schemes of perception, thought and action which Bourdieu called "habitus". In his words, "the habitus is not only a structuring structure, which organizes practices and the perception of practices, but also a structured structure: the principle of division into logical classes which organizes the perception of the social world is itself the internalization of the division into social classes" (1992: 170). In this way Bourdieu theorizes the inculcation of objective social structures into the subjective, mental experience of agents, for the objective social field places requirements on its participants for membership within the field. Having absorbed objective social structure into a personal set of cognitive dispositions, and the subjective structures of action of the agent then being commensurate with the objective structures and existing demands of the social field, a so-called doxic relationship emerges. Doxa are
the fundamental, deep-rooted, unconscious beliefs, taken as self-evident universals that inform an agent's actions and thoughts within a particular field. Doxa tend to favour the specific social arrangement within the field, thus privileging the dominant and taking their position of dominance as self-evident. As a result, the categories of understanding and perception that constitute a habitus, being congruent with the objective organization of the field, tend to reproduce the very structures of the field. Bourdieu hence sees habitus as the key to social reproduction, as it is central to generating and regulating the practices that make up social life. In fact, Bourdieu's sociological work comprised an analysis of the mechanisms of reproduction of social hierarchies and criticized the primacy given to economic factors, by stressing that the aptitude of social actors to actively impose and engage their cultural productions and symbolic systems plays an essential role in the reproduction of social structures of domination. What Bourdieu called symbolic violence, meaning the capacity to ensure that the arbitrariness of the social order is ignored and therefore to ensure the legitimacy of social structures, plays an essential part in his sociological analysis.

Accordingly, language is not merely a method of communication but rather a mechanism of power. The language one uses is designated by one's relational position in a field or social space. Different uses of language tend to reiterate the respective positions of each participant (1990). Consequently, linguistic interactions operate as manifestations of the participants' respective positions within the social space and categories of understanding, thus reproducing the objective structures of the social field. The use of language is mostly acquired within the family and through school. Bourdieu claims that "the two markets, the family and the school, function as sites in which the competences deemed necessary at a given time are constituted by usage itself, and, simultaneously, as sites in which the price of those competences is determined, i.e., as markets which, by their positive or negative sanctions, evaluate performance, reinforcing what is acceptable, discouraging what is not, condemning valueless dispositions to extinction" (idem: 85). Furthermore, he emphasizes that the specific notion of academic capital, mostly embedded in academic degrees and university appointments but also related with the circulation of forms of academic reasoning and with the ways in which specifically authorial relations play a role in constructing this field, "is in fact the guaranteed product of the combined effects of cultural transmission by the family and cultural transmission by the school" (1992: 23).

So what is the position of multilingual migrants in Germany within Bourdieu's theory? And what role does the school play in endowing them with cultural and academic capital? Bourdieu claims that power relations within a society mostly depend on the amount of cultural capital of its participants and that this is transmitted within the school and officially acknowledged through school credentials. Thus, and in Bourdieu's own words:

Through its value-inculcating and value-imposing operations, the school also helps (to a greater or lesser extent, depending on the initial disposition, i.e., class of origin) to form a
general, transposable disposition legitimate culture; which is first acquired with respect to scholastically recognised knowledge and practices but tends to be applied beyond the bounds of the curriculum, taking the form of a "disinterested" propensity to accumulate experience and knowledge which may not be directly profitable in the academic market. (Idem)

As already mentioned, the German school system seems to accentuate social inequality by failing to capitalize migrants' specific cultural and linguistic skills in order to enable officially acknowledged academic capital to be used in the labour market. According to Fürstenau (2004), the explanation for this partially peripheral position of immigrants within the social field is to be found in the prevailing linguistic power relations in Germany. She uses Gogolin's concept of the "monolingual habitus" (1994), in which German society and institutions are embedded to conclude that individual and social monolingualism correspond to the normal and legitimate practice and that this is accepted by both host community and migrants. She claims that "the 'monolingual habitus' affects within the national society the 'market value' of linguistic property - namely negatively in case the case of 'lebensweltlich' multilingual practises" 42 (2004: 52). The specific language skills of migrants are seldom and only partially legitimized through the school system and, in Bourdieu's terminology, can be characterized as illegitimate linguistic practices. In her analysis of Portuguese adolescents living in Germany, she concluded that they are very much aware of the role of each language within the linguistic market:

It is a 'socially relevant difference' whether a language is negotiated as an 'immigrant language' or as 'foreign language' or 'national language' of a state. Youngsters discover fairly soon that they can revalue their linguistic skills if they can approach Portuguese as the national language of Portugal or Brazil (above all in international trade), suggesting that they are dealing with foreign languages (...). ${ }^{43}$ (Idem: 146)

Thus, though it is seldom the case, multilingualism can be acknowledged through education and be transformed into the sort of cultural capital which turns migrant language skills into legitimate practices, ready to be used in the labour market.

## 5. Conclusions: the need for plurilingual education

The term "plurilingual education" was developed by the Council of Europe while referring to both language-teaching in general and the teaching of languages in lin-

[^20]guistically heterogeneous classrooms. Thus, it encompasses the dual aspects of language from the minority student's perspective and language as the host community's means and aim of teaching. Therefore, the discussion on multilingualism and education should adopt this new terminology.

The relationship between linguistic diversity and education is of such a complex nature that one would need a much vaster work to explore further important issues. However, as this is not the main aim of the current work, only a few relevant conclusions will be highlighted.

In urban areas, such as the city of Hamburg, approximately $35 \%$ of the pupils at primary school frequently use a language other than German in their daily communication at home, a figure that is set to rise in the next few decades. This phenomenon has already begun to expand to countries that were till recently typical emigration nations, such as Greece, Spain, Italy, and Portugal. For the linguistic everyday interaction of these children, both German and their home language play an important role, particularly in the cases of families in which one or both parents were born abroad. Nonetheless, the two languages do not compete; rather, they complement each other, as they are used in situation-specific contexts. In addition, children from monolingual German families are confronted by linguistic diversity on a daily basis. Several surveys have proved that these children show an interest in learning English but also in several of the home languages of migrant pupils, such as Turkish, Russian, Greek, Polish and Portuguese.

Consequently, linguistic diversity shapes the lives of all children, a fact that is of real relevance for educational planning and organization, as explicit engagement with this diversity benefits all student groups. In the particular case of second language learners, instruction in their home language has proven necessary for general linguistic development as well as for educational achievement. Children who attend home language classes are considered more proficient, particularly regarding their written skills. It should thus be the responsibility of school and language politics to make use of this linguistic potential rather than seeing it as a linguistic problem. The main aim could be to endorse an elaborate multilingualism for all student groups, which, through educational acknowledgement and certification, would contribute to reducing mechanisms of social inequality. Consequently, it could, in the long term, play a significant role in attenuating the current phenomenon of the "Unterschichtung" (underlayerment) of migrants.

## II. Academic language and school achievement

Bildungssprache ist die Sprache, in der besonderes Wissen auf eine besondere Art und Weise behandelt wird. Hanspeter Ortner

The discussion about school achievement in Germany has gained new visibility in recent years due to the public discussion of the results of international monitoring studies such as PISA (2000, 2003 and 2006) or PIRLS/IGLU (2003; 2006), among others. This debate was, for some time, centred particularly on the question of teaching efficiency as student outcomes have been considered too low, leading to a more general discussion about the school system and its general achievement. Particularly low, however, is the performance of language minority students in all three tested areas: reading, mathematics and sciences. The PISA-Study conducted in the year 2000, for instance, shows that the performance gap in reading between migrant and majority students is wider only in Belgium than in Germany. Hence, this gap is less marked in all other countries. The 2003 Study supplied new data which confirmed the inefficacy of the school system in dealing with migrant students; those who were born abroad and immigrated after having completed some schooling in their home countries (and in their mother tongue) actually performed better than those migrant students born in Germany who had completed their whole school education in this country.

As mentioned in the previous chapter, there are different explanations for this performance disparity (Roth, 2007). Some researchers account for the gap as a consequence of structural failures or institutional discrimination on the part of the school system (Gomolla and Radtke, 2002). Others, drawing on Bourdieu's theory of cultural capital, claim that migrant families have fewer resources as regards education, cultural participation, formal skills and qualifications, which influence students' performance. A third explanation focuses on the language used at and expected by the school - the so-called school "academic language" (Cummins, 1979) or "language of schooling" (Schleppegrell, 2004), or "Bildungssprache" (Gogolin and Roth, 2007; Gogolin and Lange, 2010) as distinct from the term "technical discourse" (used in specific subjects such as physics or mathematics). Research into technical languages has identified some morphological and syntactical differences with regards to standard German language, such as the use of nominalization, passive voice and other linguistic elements. Some of these aspects are common to academic language. However, the term academic language is broader and comprises the whole act of speaking in educational contexts: written texts, oral interactions, the teacher's classroom language, the language used for presenting the results of teamwork and so on (Roth, 2007). Hence, one of the reasons for the underachievement of migrant students in nearly all monitoring studies can be traced back to a lack of competence in dealing with and acquiring academic language in the second
language. Migrant students thus perform poorly as a result of specific linguistic problems, which result from the inadequate acquisition of this sort of language.

This chapter begins by addressing the particular question of language and school achievement when related to the bilingualism situation of minority students, followed by a reflection on the type of language used at and expected by the school. Several approaches to the issue of language use during school will then be presented in order to delineate the concept of "academic language". The main reasons for focusing on this particular register will then be discussed from an educational perspective. This concept will then be defined and examined in relation to other similar concepts. Lastly, the specific linguistic features which mark it will be identified for both German and Portuguese languages.

## 1. Language, multilingualism and educational success: why "academic language"?

As already mentioned, there are considerable disparities between the performance of students with a migration background and that of monolingual German students, and this gap is more accentuated than in most other OECD countries (see PISA 2000 and 2003 for example). Since the first PISA Study in 2000, as shown in Figure 2, it has not diminished significantly in the last 10 years. Furthermore, and contrary to the trend in all other countries, the situation of the second generation is slightly worse than that of the second, meaning that the educational system is contributing to reproduce and maybe even strengthen social inequalities.


Figure 2 - Performance gap of pupils with a migration background of the first and second generation in PISA 2000, 2003 and 2006 (Konsortium Bildungsberichterstattung, 2008: 85).

Both in the PIRLS and the PISA Studies, there are close relations between reading abilities and higher attainment in maths and natural sciences. As displayed above, the first generation pupils, who attended classes in their first language, perform better than second generation students who completed their whole schooling in Ger-
many. However, for example in the DESI-Study (Deutsch-Englisch Schülerleistungen International, Klieme et al., 2006), pupils with a migration background perform better in English than monolinguals, meaning that there is an unexplored potential in their linguistic repertoire which is not being taken into consideration within the German educational system, except for the case of the English language. In addition, the focus on language abilities and reading comprehension needs to be narrowed down. There has been 10 years of investment into the school system and no visible results for first and second generations migrants can be seen. Language promotion programmes and concepts focused on general linguistic abilities have not produced the expected results. The federal programme FöRMig (Förderung von Kindern und Jugendlichen mit Migrationshintergrund) has suggested a change of focus to the particular language register called "Bildungssprache", which, when explicitly conveyed to pupils with migration background, seems to produce visible learning effects (Programmträger FöRMIG/Gogolin, 2010). "Bildungssprache" is, on the one hand, used and expected by educational institutions, occurring in classroom talk and teacher discourse in general, but also in text books, and on the other, it is expected from "good" pupils who succeed in attaining higher educational outcomes. This concept will be further discussed and defined in the following sections.

## 2. Approaches to the concept of "academic language"

The term "academic language" is used in different languages with diverse meanings and is polysemic in nature, even within the scope of the English language. Furthermore, it can be found in several academic disciplines and professional contexts taking on yet again different meanings. Thus, it is a rather difficult term to define for the purpose of the present work, as this terminological delineation becomes even more problematic when taking into account the three languages present in this book, i.e. German and Portuguese (the subject of the work) and English (the medium of communication). These particular languages bring with them not only differing and sometimes conflicting definitions, but also divergent traditions on the issue of "academic language". The present section is an attempt to approach and outline this concept, taking these three languages and traditions into account.

Generally speaking, in the field of social sciences, there are two main approaches in dealing with "academic language". On the one hand, there is an academic descriptive (sometimes also normative) perspective, mainly concerning the language used in academic discourse and developed from a monolingual viewpoint. In this context, "academic language" and other similar varieties is related to the sort of language used in academic institutions particularly for scientific or scholarly purposes. In the English context, there are a number of terms which are related to this concept, such as "English for academic purposes", "English academic discourse" (EAD), "academic discourse", "academic writing" or "academic literacy" (for a summary of contrastive studies see Bennett, 2010).

In the German context, Ehlich has used the term "Wissenschaftssprache" (1995), already defined by Habermas (1977) to refer to the context-disembedded language, with a high standardized style, through which statements are made and in which they are theoretically set. This language follows the rules of the written discourse also in its oral form. More recently, Ortner (2009) has used the term "Bildungssprache" also to refer to the language style which evolves from what he calls elementary everyday knowledge and is acquired after a prolonged school and study period, as well as participation in open discourse of scientific themes. The main features he identifies in this sort of language are the rules of the elaborated written discourse, also when the medium of expression is oral. Furthermore, he identifies concrete linguistic means at morphological, lexical and syntactical levels, typical of statements in "Bildungssprache" (for example, expanded vocabulary which is used both receptively and productively and which is not of technical nature, knowledge of different forms of discourse, such as argumentative or explanatory text genres, lexical chunks and phraseologisms, etc.)

In the case of Portuguese, the term "escrita científica" has been used in European Portuguese although here there is a clear separation between the different disciplinary areas. In the humanities and social sciences, academic production has more in common with literary genres than with English and German scientific styles, and thus makes use of quite different linguistic features (Bennett, 2010).

On the other hand, there is also an educational hermeneutical approach mostly marked by studies dealing with linguistic diversity and school outcomes. This will be discussed below.

## 3. Educational-hermeneutical approach to "academic language"

### 3.1 The English-speaking context

In 1979, Cummins distinguished between basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP). The intention of such a distinction was to clarify the different time periods typically required by migrant children to acquire conversational fluency in their second language as compared to grade-appropriate academic proficiency. A functional level of conversational fluency is often attained within approximately two years of initial exposure to the second language, whereas at least five years are commonly required to catch up with native speakers in academic aspects of the second language (Collier, 1987; Klesmer, 1994; Cummins, 1981a). Failure to take account of the BICS/CALP (conversational / academic) distinction has resulted in discriminatory psychological assessment of bilingual students and premature exit from language support programmes into mainstream classes (Cummins, 1984a).

As early as 1976, Skutnabb-Kangas and Toukomaa came to the conclusion that Finnish migrant children in Sweden often seemed fluent in both languages, although their written academic performance was considerably beneath grade expec-
tations. A similar observation derived from an analysis of psychological assessments administered to minority students, which showed that teachers and psychologists often assumed that children who had attained conversational fluency in English had also overcome all difficulties in this language (Cummins, 1984b). Nonetheless these children repeatedly performed poorly in English written academic tasks, as well as in psychological assessment situations. Further evidence for this discrepancy was also provided by Cummins (1981a) in a reanalysis of data from the Toronto Board of Education. Although teachers observed that peerappropriate conversational fluency in English developed rapidly in second language learners, an average period of five to seven years was required for immigrant students to approach grade norms in academic aspects of English. Cummins' (1981b) attempt to explain this divergence was illustrated by the use of two intersecting continua which highlighted the amount of cognitive demand and contextual embedment involved in particular language tasks or activities, as seen in Figure 3.


Figure 3 - Model of linguistic dimensions based on Cummins' distinction between BICS and CALP (based on Roth, 2006).

The BICS/CALP distinction was related by Cummins himself to other theoretical dichotomy pairs of several other authors: Bruner's distinction between communicative and analytic competence (1975), Donaldson's embedded and disembedded language (1978) and Olson's utterance and text (1977). Although varying in detail, the essential distinction in all of these studies refers to the extent to which communication is supported by contextual or interpersonal signals between the interlocutors or dependent on linguistic cues that are largely independent of the immediate communicative context and even from an interlocutor.

Cummins (1979a and 1979b; 1981b) pointed out that not all aspects of language use or performance could be included in one global notion of language proficiency. For example, if we take two monolingual English-speaking children, a twelve-yearold and a six-year-old, there are vast differences in these children's ability to read and write English and in their knowledge of vocabulary, but minimal differences in their phonology or basic fluency. The six-year-old can understand virtually everything that is likely to be said in everyday social contexts and can use language very effectively in these contexts, just as the twelve-year-old can. Similarly, in second
language acquisition contexts, migrant children typically require very different time periods to catch up with their peers in everyday face-to-face aspects of proficiency as compared to academic aspects.

Similar results were found by Thomas and Collier ${ }^{44}$ (1995), who controlled a wide range of student background variables and instructional treatments to examine student performance in many different types of outcome measures across time. They assert:

Across all programme treatments, we have found that non-native speakers being schooled in a second language for part or all of the school day typically do reasonably well in the early years of schooling (kindergarten through second or third grade). But from fourth grade on through middle school and high school, when the academic and cognitive demands of the curriculum increase rapidly with each succeeding year, students with little or no academic and cognitive development in their first language do less and less well as they move into the upper grades. (1995: 4)

This result actually confirms the findings of the PISA-Study conducted in 2003 (see above), where it was proven that migrant children with previous schooling in their mother tongue performed better than language minority students learning only in German submersion classes. Indeed, this also confirms Collier's findings who tried to determine the amount of time required for second language acquisition:

In US schools where all instruction is given through the second language (English), nonnative speakers of English with no schooling in their first language take 7-10 years or more to reach age and grade-level norms of their native English-speaking peers. Immigrant students who have had 2-3 years of first language schooling in their home country before they come to the US take at least 5-7 years to reach typical native-speaker performance (...). This pattern exists across many student groups, regardless of the particular home language that students speak, country of origin, socio-economic status, and other student background variables. (1995a: 4)

Most research into the relationship between first and a second language acquisition refers to two hypotheses developed by Cummins:

- the "threshold hypothesis" (Cummins, 1976), according to which the level of first and second language proficiency of a student determines if he or she will experience cognitive deficits or benefits from schooling in the second language;
- the "developmental interdependence hypothesis" (Cummins, 1979a and 1979b), which claims that when the use of the first language is promoted by the child's

44 This study has been widely criticised, particularly as regards its methodology. For an overview of critical positions, see Rossel, who claims: "A study of school effectiveness for language minority students, authored by Virginia Collier and Wayne Thomas, is criticized as having two serious flaws. The first is that its methodology is a simple descriptive cohort analysis, seen as unscientific and producing misleading results because: each grade consists of different students; the number of students in each grade is not given; there is no statistical control for pretreatment differences; and the test scores shown after elementary school are not for the same cohorts. The second flaw is that little about the methodology is explained" (1999:1).
linguistic environment outside the school, then a high level of second language competence is also likely to occur at no cost to first language proficiency. Thus, first and second language literacy skills are seen to be interdependent, i.e., they are manifestations of a "common underlying proficiency." As a result, high levels of first language proficiency facilitate second language acquisition, and conversely, high proficiency in the second language has positive effects on first language development.

However, the concept of elaborated and restricted language codes, the first dichotomy of this sort, was, in reality, introduced by Basil Bernstein in 1971, as a way of accounting for the relatively poor performance of working-class pupils on lan-guage-based subjects, when they were achieving as well as their middle-class equals on mathematical topics. One of Bernstein's research studies (1971: 203) involved showing a group of children a strip cartoon and recording their account of what it depicted. Some responded:

```
They're playing football
and he kicks it and it goes through there
it breaks the window and they're looking at it
and he comes out
and shouts at them
because they've broken it
so they run away
and then she looks out
and she tells them off.
```

While others said:
Three boys are playing football and one boy kicks the ball
and it goes through the window
the ball breaks the window
and the boys are looking at it
and a man comes out and shouts at them
because they've broken the window
so they run away
and then that lady looks out of her window
and she tells the boys off.
The essence of this distinction lies in the intention of the use of the language; the restricted code is more suitable than the elaborated code for situations in which there is a great deal of shared and context-embedded knowledge in the group of speakers. It is economic and rich, conveying a vast amount of meaning with a few words, each of which has a complex set of connotations and acts like an index, pointing the hearer to more information which remains unsaid. Elaborated code, on the contrary, is explicit; all of the information needs to be mentioned so that everyone can understand the utterance. In other words, it has to elaborate, as circumstances do not allow speakers to condense.

Accordingly, Bernstein's research argued that working-class students had access to their restricted code(s), while middle-class students had access to both restricted and elaborated codes, since the middle classes were more geographically, socially and culturally mobile. Consequently, if a student cannot access the elaborated code, he or she will not succeed in the educational system unless this code is made accessible to her/him. And with this conclusion, he concurs with Cummins' theory about the underachievement of migrant students.

In a study conducted at the Federal University of Mato Grosso, Brazil, Nozaki and Dias (1999) also analysed the question of restricted language and school achievement coming to the conclusion that, in the analysed urban areas, school success was attained through the use of an elaborate language code and that children from families with a high cultural capital, in general, performed better. However, the analysis conducted in schools in the outskirts of the city showed that the students that were more successful academically were those with a restricted language, as those few students who made use of an elaborate language were discriminated against by the majority and in fact avoided using it. In this case, the exception became the rule, through the strong influence of the school environment.

Nonetheless, this dichotomization of the question of the school achievement of migrant students has been subjected to a number of criticisms, mainly during the 1980s and '90s. Edelsky et al. (1983), for instance, suggested that the conversational/academic language distinction reflects an autonomous perspective of language that ignores its location in social practices and power relations (see also the criticism made by Wiley, 1996). Furthermore, these authors consider that CALP merely reflects the students' mastery of "exam technique", thereby showing up the inappropriateness of the assessment method and promoting a "deficit theory" in attributing the academic failure of bilingual/minority students to low cognitive/academic proficiency rather than to inappropriate schooling (Edelsky, 1990; Edelsky et al., 1983; Martin-Jones and Romaine, 1986).

In an attempt to respond to these criticisms, Cummins (Cummins and Swain, 1983) pointed to the elaborate sociopolitical framework surrounding the BICS/ CALP distinction (Cummins, 1986), where underachievement among subaltern students was attributed to coercive power relations operating in society at large and reflected in schooling practices. As evidence, he alluded to the work of Biber (1986) and Corson (1995) to illustrate the linguistic reality of the distinction. Corson highlighted the enormous lexical differences between typical conversational interactions in English as compared to academic or literacy-related uses of English. Likewise, Biber's analysis of more than one million words of English speech and written text revealed underlying dimensions consistent with the distinction between conversational and academic aspects of language proficiency. Cummins also noted that academic language proficiency, as a construct, does not in any way depend on test scores to support its validity or relevance to education, as demonstrated by the analyses of Corson and Biber.

Thus, both Cummins and Bernstein argue that the language used for daily communication plays a minor role in school achievement. Conversely, the type of language that is required for academic success is largely oriented by the rules of written discourse - even when it is used in oral contexts within the classroom. Nevertheless, almost 30 years after the first research on this topic, it is still not exactly clear what sort of academic language is meant when referring to the question of school achievement of migrant students and how precisely to integrate it in the curricula. Valdés sums up this discussion:

> It has become increasingly clear to practitioners and researchers who work with language minority children that the general public has little understanding for the subtleties of English language learning and about the types of English that are required to succeed in school. It has also become clear that much more work needs to be done by the profession in understanding the kinds of language that will result in school success. (2004: 102)

However, there is some consensus. School academic language can in fact be defined according to Halliday's depiction of written language (1989): it is characterized by a high lexical density; it is not situation- or context-specific and functions strongly with symbolic, generalizing and abstract linguistic expressions. In contrast, everyday communication is dominated by associative, concrete and illustrative elements, which are highly context-embedded. More important is the question of complex language as academic language. According to Roth:

> It is commonly understood that the vocabulary of academic language is more specific and context-free. However, one of Halliday's theses is very new in the German debate: namely that academic language is less grammatically complex. Normally people (like teachers) think that academic language is more complex than the spoken communicative language, for example that syntax will be constructed using compound sentences. But Halliday has shown that it is the other way round. Academic language - not only in English but also in German - tends to avoid complex syntactical phrases. I think one fundamental reason for that is based on the more complex cognitive activity in using an abstract and contextreduced vocabulary. (2007:2f)

Using Halliday's systemic functional theory of language (Halliday, 1994), Schleppegrell (2004) addressed the concrete use of academic language in educational contexts, such as different exercises, text books and essays both from primary and secondary school, while comparing it to language features in common interpersonal communication. This enabled her to characterize the academic language used in schools at a lexical, morpho-syntactic and textual level. At the lexical level, common academic language features are the use of precise, technical words which might be discipline-related; by lexical and grammatical approaches to condense information, as well as the use of explicit and specific references to time and space which serve to establish a frame of reference shared by the speaker and the audience. As a consequence, academic language utterances contain more content words than everyday interactive discourse and are thus formed by information-dense sen-
tences. At the morpho-syntactic level, academic language makes use of elaborate forms of tense and aspect to intensify the frame of reference, as well as of persuasive, declarative or argumentative mood of the verb predicate, and the use of adverbs and auxiliaries to represent the speaker's attitude. Furthermore, academic language is marked by a more repeated use of coordinate, relative and subordinate clauses, mostly combined to express complex meanings in a relatively condensed manner. As a result, sentence connectors are often applied to articulate logical relations, such as temporal and logical conditionality, causality, contrast, or comparison. Lastly, at the textual level, academic language was found to be more monological than dialogical in nature, thus obliging the interlocutors to construct long pieces of discourse.

Lesemann et al. (2007), based on the same theoretical construction and relying on Schleppegrell's results, investigated the influence of home literacy practices for the emergence and development of academic language in early childhood of Dutchspeaking children. Their study confirmed the importance of home literacy practices with young children for the development of academic language and, consequently, for school success. The effects of such practices were found to be stronger than the socioeconomic status of the families and to compensate for low working memory capacity. Furthermore, their construct of academic language appeared to be rather homogenous, "with all different aspects being moderately to strongly intercorrelated" (2007: 351).

The Council of Europe has recently suggested the term "language of schooling", with the overall aim of promoting "effective skills in the language(s) of instruction which are essential for successful learning across the whole curriculum" ${ }^{45}$ The term was first used to describe the subject-specific technical language which may cause problems to second language learners and has recently acquired a similar meaning to the term "academic language" as used by Schleppegrell (2004) and Lesemann (2007), as well as "Bildungssprache" as defined by Gogolin (2009; see also Gogolin and Lange, 2010). In the policy paper of the Strasbourg language policy division (2010), the term "language of schooling" is described as the "varieties of academic language that constitute the fabric of the different curriculum subjects" (2010: 30). The motivation behind the creation of the concept is that "all teachers must be language teachers in the sense that they are sensitive to the language of their subject(s) and help their learners to master it" (ibidem). Thus, the concept of academic language from a school perspective seems to be gaining more and more visibility also in the discourse at a European level.

The idea that academic language and school achievement are related to each other is well accepted in the English-speaking research community. The authors Virginia Collier and Wayne Thomas, who undertook extensive research into second language acquisition and bilingual education models, established in 1994 a conceptual model to explain the acquisition of a second language for school. As Figure

[^21]4 illustrates, the model includes four major components - sociocultural, linguistic, academic, and cognitive processes - which are interdependent and multifaceted in their relations with each other.


Figure 4 - Conceptual model of language acquisition for school (Collier, 1995b).
Collier's description of language development is as follows:
Linguistic processes (...) consist of the subconscious aspects of language development (an innate ability all humans possess for the acquisition of oral language), as well as the metalinguistic, conscious, formal teaching of language in school, and acquisition of the written system of language (...) To assure cognitive and academic success in a second language, a student's first language system, oral and written, must be developed to a high cognitive level at least through the elementary-school years. [My italics] (1995a: 2)

As regards academic development, this author claims:
Academic knowledge and conceptual development transfer from the first language to the second language; thus it is most efficient to develop academic work through students' first language, while teaching the second language during other periods of the school day through meaningful academic content. [My italics] (Idem: 3)

Therefore she agrees that a "school language" exists and that it is essential to acquire its written register, going as far as to suggest that academic development, directly connected to language, is more efficiently conducted in the students' first language.

### 3.2 The German-speaking context: "Bildungssprache"

Werner Knapp, while not referring to academic register per se, but rather to written language in a school context, claimed: "I consider written language as a school requirement to be the central cause of the concealed difficulty with language",46 (1997: 5). In the year 2000, Zydatiß, in his language acquisition concept for the

[^22]SESB ("Staatlichen Europa-Schulen Berlin [Berlin Public European Schools]"), highlighted the importance of dealing with the specificities of the written language, which he himself identifies with Cummins' term CALP. In his opinion, an immersion programme in the second language was necessary, as there are "(...) special requirements for technical or content-related literacy (...) (namely the contact with the written language: CALP in contrast to BICS) ${ }^{, 47}$ (2000: 53). Furthermore, alluding to Baker's distinction between "street English" and "school language" (1996), he refers to the term "Sprache des Curriculums" (Language of the Curriculum). Acknowledging that it is a theoretical construct, he nevertheless maintains that it is one of the main purposes of such immersion programmes. More specifically, he posits that one of the factors leading to higher school achievement lies in the teaching of " $(\ldots)$ the structural differences between speech and writing as forms of classroom learning (BICS vs. CALP) ${ }^{, 48}$ (idem: 102).

The most recent research into German school academic language, using the term "Bildungssprache", derived from the initial evaluation of bilingual primary schools in Hamburg, which produced the following statement, concerning second grade pupils:

The kind of German that the children must understand and learn to use at school may be legitimately viewed as a formalized technical language. Communication at school, even when it takes place orally, generally bears the conceptual characteristics of written language. ${ }^{49}$ (Gogolin, Neumann and Roth, 2003b: 51).

These authors focus on empirical data analysis, proving that academic language, both written and oral, takes a special form, closer to that of the written language. Furthermore, this analysis also led to the conclusion that: "(...) In time, the language used at school distances itself more and more from the rules of everyday language, moving towards growing abstraction" ${ }^{50}$ (idem).

In a study with Russian and Turkish migrants about mathematical literacy, Gogolin, Kaiser and Roth (2004) proved that the crucial factor for school success is not general language proficiency but academic aptitude in the first language. As evidence for this conclusion, they stress the superior school achievement of students who immigrated to Germany during primary school or even later, thus having attended classes in their first language, despite their lower performances in the oral tasks. Hence, the language of school is linked to cognitive development in the first

[^23]language and not to oral proficiency in the second, being marked by the rules of written discourse.

As regards the assessment of bilingual primary schools in Hamburg (Roth, Neumann and Gogolin, 2007), the final report on all four school years and language combinations reached similar conclusions (having firstly however helped to define the term academic register for the German language). The oral data were transcribed and analysed using MaxQDA, a computer programme for qualitative content analysis, and then the data were transferred to SPSS. The statistical factor analysis showed that it was possible to isolate elements of academic language in spoken contexts. Thus, three factors of the spoken school language (or "modes", as they have been called by the authors) were isolated. They are
i. - the colloquial mode

- empty phrases like "oder so" (or so);
- colloquial phrases like "so machen" (do like this);
- attributes;
- a high rate of compound sentences;
ii. - the academic mode
- the specific German phenomenon, called nominal style;
- many compound words;
- a high rate of verbs;
- a high rate of impersonal phrases with "man" (one) and "es" (it) as substitutes for the subject;
iii. - the elaborate mode
- subjunctive (Konjunktiv);
- passive voice (Passiv).

While the elaborate mode played no important role, the distribution of the academic and colloquial modes in German was surprising. The bilingual students' speech was more characterized by colloquial language than that of the monolingual German students. In particular, the distance between the monolingual German students and those monolingual in the home language ${ }^{51}$ was statistically significant. The bilingual students performed better than this last group even though there was still an evident gap in relation to the German students. However, when focusing on the results for the academic mode (cf. Figure 5), no differences were found between these three groups of students. Only the distance of the monolingual students in the heritage language was found to be statistically significant, which means that second language acquisition in German was incomplete after four years.

[^24]

Figure 5 - Mean and distribution of the performance for the academic mode in German (Roth, Neumann and Gogolin, 2007: 60).

The close relationship between academic language proficiency and school achievement was also supported by the results of the reading-comprehension test used as a control factor. A significant correlation was found between the use of academic language and reading achievement, although there was no correlation with colloquial use. For these authors, the conclusion is clear:

This would seem to confirm the significance of academic register for the development of children's school achievement. In future, language teaching should focus upon the development of this special linguistic variety. ${ }^{52}$ (Roth, Neumann and Gogolin, 2007: 61)

In summary, it is assumed that proficiency in academic language leads to improved school results, not only for bilinguals, but for all students that are not exposed to this sort of language at home. In the German school system, however, bilinguals often fail to acquire this skill if they have not mastered the capacity to express themselves abstractly in their mother tongue first.

## 4. Linguistic features of "academic language"

So how exactly is academic language understood for the purpose of the current research? Table 3 summarizes the main aspects found in the literature and related to this concept, establishing an opposition in relation to non-academic language. Some of these are still to be empirically proven or are subject to diverse opinions. These will be further developed below for each language.

[^25]As we can see, there is some consensus about the meaning of the term "academic language", which can actually be applied to several languages. However, one purpose of the current study is to identify and determine some of the linguistic features through which academic register is characterized. This therefore, will have to be language-specific, both for German and Portuguese.

Table 3 - Main characteristics of academic language (summary of main aspects found in the literature).

| Academic language | Everyday speech |
| :--- | :--- |
| Oriented by the rules of the written language (even <br> when it is oral) | Mainly oriented by the rules of informal oral <br> communication |
| Abstract and symbolic | Concrete and factual |
| Context-disembedded | Context-embedded |
| Generalizing | Specific |
| May be technical and domain-specific | Unscientific and of general use |
| Linguistically concise | Linguistic diffuse |
| Precise (definition of terms) | Imprecise (use of generally understood terms) |
| Impersonal | Personal (agents usually made explicit) |
| Complex interlocking referential structure | Implicit referents due to the amount of shared <br> knowledge between interlocutors |
| High degree of cohesion | Partially unstructured and loose |
| Use of different speech acts to serve the same purpose | Concentration on one speech act |
| High lexical density | Low lexical density |

### 4.1 Features of German academic language

In the two studies mentioned above (Gogolin, Kaiser and Roth, 2004; Gogolin, Neumann and Roth, 2003a and 2007), some of the specific linguistic means used to achieve the explanative speech act in German academic language were established, using oral samples. At the semantic level, the two main features identified in both studies are marked by simplicity and the use of technical terms. The first aspect predominantly involves the use of simple verbs instead of complex verbs with prefixes, for example "steigen" (ascend) instead of "hochgehen" (go up). The latter implies the application of expressive and specific terms, such as "sprudeln" (effervesce) or "flüstern" (whisper), as well as of technical terminology, as for instance "Moleküle" (molecules) or " $\mathrm{CO}_{2}$ " Additionally, academic register, as suggested by the authors, makes use of specifying attributes, both adjectival, as well as adverbial ("heiße" Luft" (hot air)), ("richtig heiß" (really hot)). Concerning the nominal aspect, the use of compound words ("Digitalkamera" (digital camera)) was also acknowledged as being one of the features of academic register.

From a morpho-syntactical perspective (though without attempting to separate this from semantics), one of the main characteristics identified was the use of impersonal expressions ("es gibt" (there is), "es steigt" (it ascends), "man" (one)) and passive voice constructions ("das wird ja immer heißer" (it gets hotter and hotter),
"weil das Wasser Eis wird" (because the water turns into ice)). Both constructions contribute to a depersonalization of the utterances. In addition, the use of the socalled nominalization process was identified as referring to the transformation of a verb or an adjective into a noun, with or without morphological adjustments, so that the word can act as the head of a noun phrase (for example: "He didn't know if the rules were applicable" and "He speculated on the applicability of the rules"). Concerning these two last items, Gogolin and Roth specify:


#### Abstract

Analogies exist with the research into German technical language, such as the marked use of passive voice constructions to depersonalize the statement or the inflation of the noun phrase for the compression of information, as signs which distinguish technical discourse from everyday language. ${ }^{53}$ (2006: 7)


Moreover, the use of the subjunctive mode, particularly linked to statements of uncertainty and hypothesis building, was recognised as a stable factor for academic language in the analysed school setting.

Concerning referential structure and text cohesion, dense deixis was seen as typical of academic register, whereby words or expressions rely entirely upon the immediate textual context rather than on external influences. Likewise structuring connections between clauses, through conjunctions or other expressions, was accepted as one of the features of academic register.

As regards the textual dimension, a high number of linking devices ("also" (thus), "zum Beispiel" (for example)) seemed to play a role in the students' statements at academic level. These discourse organizers can be specifying, spatial, temporal, etc., depending on the purpose of their use, contributing to a thicker framework of textual cohesion.

Finally, and particularly as a result of the evaluation of the bilingual schools in Hamburg, the ability to switch between different speech acts ${ }^{54}$ within a few utterances was also identified as a sign of high academic competence. Students that were able to define, justify statements, explain, narrate and so on and were familiar with the linguistic means matching all these different acts also tended to achieve higher scores in the reading-comprehension test.

Within the FöRMIG-project context (Reich, 2008; Gogolin and Lange, 2010), and similarly to Schleppegrell (2004), a summary of German academic language features has been conducted at different levels. At a lexical-semantic level, the use of differentiating and abstract expressions (for example "nach oben transportieren" instead of "raufbringen") has been identified. Furthermore, German academic lan-

[^26]guage seems to make more frequent use of verbs with prefixes (particularly those which are inseparable, as for example "erhitzen" or "verpassen"), as well as of verbs with reflexive pronouns (for example "sich beziehen" or "sich entfalten"). Concerning the nominal lexicon, Reich (2008) has also identified a high number of compounds ("Winkelmesser") and technical terms which vary across the subjects ("Dreisatz", for example).

At a syntactical level, German academic language is marked by the explicit use of cohesion forms which contribute to textual unification and can take on several forms (for example, conjunctions or adverbs). The sentential structure is mostly composed of compound forms, such as relative or conjunctional clauses. In addition, a considerable number of impersonal expressions (sentences in the passive voice, or "man"-sentences which in English could be translated by "one"-sentences in, for example, "one might say that") contribute to reduce personal and auctorial presence thus increasing the distance towards the recipient and the degree of abstraction of the content. Another particular aspect lies on the frequent use of verbal constructions such as "zur Explosin bringen" or "in Betrieb nehmen", as well as of expanded attributes which condense a large amount of information (e.g. "die nach oben offene Richterskala").

At a textual level, German academic discourse is marked by a clear stipulation of communication roles, mostly deriving from the fact that it is typical from monological forms (such as academic texts or a presentation). It is equally dominated by textual types which have pre-defined principles, such as protocols or reports, as well as by stylistic conventions which require logical structuring and objectivity.

### 4.2 Features of Portuguese academic language

There has been little research conducted into academic language and school success in the reviewed literature relating to the Portuguese language, particularly concerning the question of second language acquisition and bilingualism. Despite increasing immigration to Portugal, the situation in the Portuguese-speaking countries is not yet comparable to that in English- or German-speaking countries. The few articles concerning academic register tend to mention the work done by Halliday, Bruner and Bernstein (see above), focusing upon abstraction, structured speech and depersonalization (Mortimer, Chagas and Alvarenga, 1998). These authors analysed the answers given in the final Chemistry exam of secondary education in Brazil and identified a highly nominalized style as characteristic of academic register, as for the German language. For Portuguese, they give the following example:

In referring to the way in which the temperature increase affects the way cooking salt dissolves in water in our daily life, we would normally say: when we put salt in water and heat it up, we manage to dissolve more salt than in cold water. In scientific discourse, we express the same fact in a different way: the temperature increase causes an increase in the solubility of salt. Note that, in the first sentence, the agent is present; the verbs refer to ac-
tions carried out by that agent, and the facts are presented in a sequential order that ensures the linearity of the discourse. In the second sentence, however, the agent disappears as a consequence of the nominalization of processes. Thus, actions previously expressed as verbs are included in nominal groups (temperature increase and increase in the solubility of salt). The verb (cause) no longer indicates an action but rather the relationship between two nominalized processes. ${ }^{, 55}$ (Idem: 3).

According to these authors, this process of nominalization should actually increase the lexical density of the students' answers, although they could not confirm this hypothesis with their results.

Another feature identified in the study, and also mentioned for the German language, was the use of conjunctions to establish causal relations between the scientific processes they were supposed to describe:

The use of conjunctions as causal linkers brings the students' text closer to scientific discourse. The use of sentences such as $A s$... then ... or ... so ... (therefore) ... reveals a causal relationship between what is already known or given (the clause following the linker 'As') and the new information (the clause following 'then'), characteristic of the construction of scientific discourse, according to Halliday (1993). ${ }^{56}$ (Idem: 10)

In a chapter entitled "Qualidades da linguagem científica" (Qualities of scientific language), Bernardes and Jovanovic (2005: 50-55) briefly summarize the main features of Portuguese academic register, although without referring to the specific linguistic means used to attain them: impersonal, objective, referential, technical, unambiguous and precise as well as concrete.

Hence, it can be seen that the main features of academic register are, in fact, common to both analysed languages and have also been found in the Englishspeaking literature, at least from a school language perspective. However, the concrete linguistic means through which academic language can be characterized and linked to a school context remain unexplored for the Portuguese language.

[^27]
## 5. Conclusions: academic language in the current study

There are several explanations for the performance gap between language minority and majority students. If one excludes social and structural approaches, the discrepancy between the type of language used daily by the migrant students in their second language and the sort of language actually required at school is one of the explanations often mentioned in the literature. Many researchers (such as Bernstein, Bruner, Donaldson, Olson, Cummins, etc) have argued that this academic register is not accessible to all social groups outside of a school context.

Although there is a wide consensus on the question of the relation between academic register and school achievement, there seems to be some ambiguity at a terminological level; what does academic register actually mean? Is it an abstract in-ter-linguistic concept? Or does it manifest itself through concrete linguistic means, different for each language?

For the purpose of the present study, academic language is defined in a similar way as in the works done by Schleppegrell (2004), Lesemann (2007) and Gogolin and Roth (2007), as well as Gogolin and Lange (2010). It is thus to be understood as a formal language register with specific linguistic and textual features which, on the one side, is used within school institutions and texts and, on the other, is growingly expected from successful students. It is oriented by the rules of written discourse (Koch and Oesterreicher, 1995) and is decontextualized and abstract. It can thus be seen as a pre-phase of academic discourse as provided at university level, while not being subject-specific, but rather combining features from all subjects across the curriculum.

In second language acquisition, most authors agree that the attainment of a high level of proficiency in academic language in the second language will be facilitated when this proficiency exists in the first language. Some authors even advise developing this skill in the first language and then transferring it to the second language.

The discussion in Germany on this topic is recent but there is some consensus that the performance gap between language minority and majority students in monitoring studies may be explained by a lack of proficiency of academic German (among other factors). As mentioned above, some linguistic means have been identified for the specific function of oral explanations, but very little has been done with written samples of narrative discourse. A similar absence of research has been verified for the Portuguese language. Thus, the current study seeks to make a useful contribution to this area.

# III. The Portuguese-German bilingual model at the Rudolf Ross School: on bilingual education 

> Take any group of bilinguals who are approximately equivalent in their L1 and L2 abilities and match them with a monolingual group for age, socioeconomic level, and whatever other variables you think might confound your results. Now, choose a measure of cognitive flexibility and administer it to both groups. The bilingual will do better. Kenji Hakuta

The first Portuguese-German primary class began operating on $1^{\text {st }}$ August 2000 at the Rudolf Ross School in Hamburg, the first of its kind in this city, where the students can simultaneously acquire both languages. Bilingual instruction is a part of the curriculum offered by this institution, which has around 800 students from over 30 different countries. The development of this project was made possible as a result of cooperation between the educational department of the Portuguese Embassy in Berlin and the "Behörde für Bildung und Sport" (Department for Education and Sport) in Hamburg. Following a concept originally designed for the primary school, the project was later expanded to the "Gesamtschule" (Comprehensive School) so that there are also bilingual Portuguese-German classes in the fifth and sixth grades and all throughout secondary school. In addition to the official school curriculum given to all schools in Hamburg, Portuguese is included as one of the languages of instruction for the bilingual programmes and as second foreign language for all other students.

This chapter will give a brief overview of the model applied at the PortugueseGerman school, followed by a reflection about other models of bilingual education in Germany, the US and Canada. This will be followed by a discussion about student outcomes in bilingual education programmes.

## 1. Bilingual education at the Rudolf Ross School

The bilingual classes at the Rudolf Ross School are open to students with a Portuguese background, students from one of the countries that has Portuguese as its official language, German monolingual children, and anyone else with an advanced knowledge of one of these languages. As a result, the Portuguese-German classes comprise monolingual German children (about 50\%) and Portuguese-speaking children, alongside students with other linguistic backgrounds.

Not all of the core curriculum subjects are taught bilingually in these classes. The German- and Portuguese-speaking teachers work in teams, teaching three hours a week in a subject related to the social sciences. Music is likewise taught by a bilingual teacher, who makes use of both languages for instruction, while some parts of the mathematics curriculum are also taught via this method. In addition, in order to foster meta-linguistic skills and the capacity to transfer knowledge from
one linguistic system to the other, language classes are structured contrastively. Accordingly, approximately $50 \%$ of the curriculum is taught bilingually, comprising a total of twelve hours per week.

Apart from the linguistic aspect of the classes, the model incorporates an intercultural feature, in which the students also learn about other countries linked to the Portuguese language from a geographic, historical and cultural perspective, in order to provide them with "an open view of the world" (cf. school profile). ${ }^{57}$

According to Fishman (1976), most bilingual education programmes tend to pursue one of the following three purposes: 1) language maintenance, in the case of minority languages that are under threat; 2) transition to a different language, in the case of temporary bilingual instruction in order to attain sufficient proficiency in the second language; 3) enrichment models, when students are instructed in two languages without loss of proficiency in either of them. The model implemented at the Rudolf Ross School falls into the category of the dual language enrichment model, though it also includes features from language maintenance programmes, as it is geared to safeguarding and developing the heritage languages of migrant students.

In research carried out predominantly in the USA, where this type of instruction has been in force for over twenty years, a set of goals, structures and contents has been established around such programmes.

## 2. Dual language education ${ }^{58}$

Dual language educational programmes arose as a response to the negative status associated with bilingualism in the USA, and blend maintenance bilingual education with immersion education models in an integrated classroom made up of both language majority and language minority students. As an overall aim, these models tend to accomplish full bilingualism and biliteracy. Thus, they provide an opportunity for English speakers to learn a second language through immersion, with the added advantage of using the language with and learning about the culture from target-language speakers. For speakers of a heritage language or bilinguals, the programme offers the possibility to acquire mainstream curriculum in both tongues, achieving academic excellence at or above grade level. According to LindholmLeary, the makeup of these classes brings advantages:

Language minority students are integrated with native English speakers in an environment that explicitly values the language and culture of the language minority students and that treats all students, regardless of language or ethnic background, in an equitable fashion. (2001: 32)

[^28]The main features of such educational programmes include the transmission of the academic core curriculum, with high standards of achievement, by means of exposure to optimal dual language input. Such linguistic patterns are mostly defined as comprehensible input, attained by repetitive speech and stimulating language models (Lindholm-Leary, 2000). The promotion of language output is accomplished through structured tasks involving oral production skills alongside encouragement to use the instructional language. A key component of this type of teaching focuses on the separation of the instruction languages into distinct time periods. The ratio of majority to target language must comprise a minimum of $50 \%$ use of the target language and a minimum of $10 \%$ use of the majority language. Two additional features of these programmes deserve mention: 1) the absence of translation, which implies no repeated lessons in the other language; 2) the development of intercultural competencies, particularly regarding religious and ethnic groups. Therefore, and according to Lindholm-Leary (2000; 2001), dual language education programmes have four main goals:

- developing high levels of bilingual proficiency;
- attaining biliteracy - to be able to read and write at grade level in both languages;
- focus on content area (mathematics, science, social studies) achievement at or above grade level;
- development of multicultural competencies.

The accomplishment of these goals depends upon the time allotted to this coordinated and parallel literacy exercise. The optimal duration of such a programme is at least six years, although in most cases a period of eight years is considered to be more suitable.

There are two main types of dual language programmes, which differ with respect to the amount of instruction in each language. The 90:10 curricula start in the first grade with $90 \%$ of instruction in the minority language and $10 \%$ in the majority, increasing gradually until it reaches $50: 50$ by the fourth grade. The $50: 50$ programmes involve half of all instruction in L1 from the beginning. Reading is normally taught first in the primary language and the target language is only added at a later date.

Taking into consideration the literature on dual language programmes (Lind-holm-Leary, 2000; 2001), key features associated with effective programmes must include:
i. administrative support by the district board of education, whereby the programme is integrated into the total school system, and not just the individual school. There must also be equal distribution of resources and recognition from other teachers and staff;
ii. instructional leadership in the form of an individual with extensive knowledge of both languages, education models and theories related to this area of research;
iii. positive learning environment for all students, which involves a safe atmosphere that facilitates learning, focuses on commitment to achievement, cultivates high expectations amongst all students, offers the opportunity of acquiring a second language at no cost to their home language and culture (additive dual language environment), and promotes positive interactions, cooperative learning and multicultural components of equality;
iv. high quality teaching staff with native or native-like ability in either or both languages;
v. professional development/teacher training in pre- and in-service training in second language acquisition, multicultural education and dual language education models;
vi. instructional design to promote achievement, biliteracy and bilingualism, including a curriculum with high standards for achievement;
vii. parental involvement and home/school collaboration to increase parents' understanding of how the model works and hence how to help promote language proficiency and academic achievement.

## 3. Student outcomes in dual language education programmes

Assessments of dual language educational programmes have found that the students involved generally attain high levels of proficiency in two languages and that these are associated with increased performance in academic achievement tests (Dawe, 1983; Fernandez and Nielsen, 1986; Lindholm and Aclan, 1991). In a longitudinal study comparing the findings from one-way and two-way dual language programmes, Thomas and Collier evaluated a wide range of programmes operating in public schools and the resulting academic achievement in standardized tests in both languages. This study is entitled: "The astounding effectiveness of dual language education for all" and at the beginning of their article the authors justify their use of the qualifier "astounding" as follows: "We use 'astounding' in the title because we have been truly amazed at the elevated student outcomes resulting from participation in dual language programmes" (2004: 1). ${ }^{59}$ The original study involved data from 700,000 students collected over fifteen years (1982-1996) and analysed the quality of six different programmes:

[^29]- ESL (English as Second Language) pullout - taught traditionally;
- ESL taught through academic content;
- ESL transitional bilingual education including (both taught traditionally);
- ESL transitional bilingual education including (academic content);
- ESL one-way developmental bilingual education and (academic content);
- Two-way developmental bilingual education.


Figure 6 - Patterns of twelfth grade English learners' long-term achievement in NCEs ${ }^{60}$ in standardized tests in English reading compared across six programme models (Thomas and Collier, 1997: 53).

As shown in Figure 6, the first three programmes were the least successful. For example, in the ESL Pullout traditionally taught programmes, the difference between the performances, when compared to national average, was the same at the beginning of the first grade as at the end of the eleventh. In transitional bilingual education and ESL (academic content), the students of migrant families showed the same degree of long-term progress as the control group, while never reaching equivalent average results. Only in the one- and two-way bilingual programmes could second language learners achieve the same results as monolingual students. According to Thomas and Collier (1995), the common variable between all successful programmes was instruction through the students' first language, particularly in the cases where the subjects taught through this language were of technical nature.

In relation to students with a heritage language, these authors came to the conclusion that "the more children develop L1 academically and cognitively at an ageappropriate level, the more successful they will be in academic achievement in L2 by the end of their school years" (idem: 49). Such results confirm Cummins" "developmental interdependence hypothesis" (1979a), mentioned in the previous chapter, which estimates that L1 and L2 literacy skills are interdependent, i.e., are manifestations of a "common underlying proficiency." High levels of L1 proficiency
facilitate L2 acquisition, and conversely, high proficiency in L2 has positive effects on L1 development. This is also confirmed by the relatively high results achieved by the students who attended school in their home countries and then emigrated. In the majority of these cases, such students could be successful at school in each of the programmes and without much support in the second language. According to Krashen:

The crucial variable here is the quality of the child's education in the primary language. Children who come with a good education in the first language have two of three characteristics of a good programme already: They have subject matter knowledge in the first language and literacy development in the first language. (1996: 21)

Taking monolingual English students into consideration, the assessment concluded that this group also benefits from participating in such a model due to its allinclusiveness. For this reason, the authors consider that "it is a school model that even the English-only advocates endorse" (Thomas and Collier, 2004: 18).

An important factor influencing the success of the different programmes is their cumulative character; while the results from the first four years do not reveal significant differences between the groups, data from long-term assessments are able to display the accurate effects of an educational programme. As Thomas and Collier stated in 1997:
> (...) significant differences in programme effects become cumulative larger, and thus more apparent, as students continue their schooling in English-speaking mainstream (grade-level classes). Only these groups of language minority students who have received strong cognitive and academic development through their first language for many years (at least through grade 5 or 6), as well as through the second language (English), are doing well in school as they reach the last of the high school years. (1997: 14, italics in the original)

Analysis of the different models found that the $90: 10$ programmes promoted higher levels of proficiency in the heritage languages (mostly Spanish in the US context) than the 50:50 models. Proficiency in English was attained in both models equally and there was no perceptible retardation in linguistic development (LindholmLeary, 2000). Thus, these authors conclude that students in 90:10 programmes developed higher levels of bilingual proficiency.

Furthermore, an increase of multicultural competencies was registered in all student groups. For instance, studies conducted on stereotyping revealed "that bilingual students showed lower frequencies of cultural stereotyping than their monolingual counterparts did" (Lindholm-Leary 2001: 271).

In addition, a plain statistical analysis demonstrates that there are fewer cases of high school dropout amongst students attending these programmes. When considering attitudes towards school and bilingualism, these students revealed a more positive approach to learning and school in general. More importantly, especially in the light of the PISA discussion in Germany, these findings were confirmed "regardless of the students' background characteristics (ethnicity, socioeconomic class,
gender, language background, and grade level), programme type (90:10, 50:50), or school characteristics" (idem: 233).

Thus, it is safe to conclude that these programmes offer second language learners equal and fair opportunities at the end of their high school education. Thomas and Collier contend that, after a short period of time (approximately four to six years), these students attain the same level as monolingual students:


#### Abstract

All well-implemented, strong programmes for English learners should allow the average participating student to reach full educational parity with native-English speakers on all school subjects, tested on grade-level and in English, after 5-6 years of exposure to the instructional programme ... (1997: 87)


### 3.1 The German case

Though not as all-embracing as studies in the US, a small number of assessments have been conducted regarding dual language programmes in Germany. The scarcity of such studies is predominantly due to the lack of schools offering such programmes:

Bilingual primary schools are still rare in Germany. While bilingual classes in secondary schools are quite common already - mostly with French or English as the second language of tuition - only six of the sixteen states offer classes in primary schools where children are able to learn right from the outset how to read and write in two languages. (Neumann and Roth, 2006: 4)

As main languages of instruction, these schools offer, among others, French, Italian, Japanese, Russian, Greek, Polish, Portuguese, English and Turkish. They differ from each other mostly as regards the vision held by the establishment and the concepts underlying the implementation of bilingual instruction. The "Europa-Schulen" in Berlin, for example, were created to endorse the European ideal of multilingualism, strengthening the role of the capital as a modern metropolis. The original plan was for schools to provide instruction in English, French, Italian and Spanish, although the second most common heritage language in Berlin is, in fact, Turkish. With the intervention of several interested parties, a school was finally set up offering the combination German-Turkish.

In Hamburg, bilingual schools were established with the support of the consulates of Italy, Portugal and Spain, which organized the courses and supplied the necessary qualified teachers. As in the case of Berlin, Turkish classes were founded three years later after much negotiation with several schools, whose reluctance was seen to be a result of fear of poor reputation associated with instruction in this language. The same can be said for Cologne.

The few studies conducted into the results of dual language programmes in Germany have shown that the consequences of first language support are in the worst scenario neutral, i.e. there are no negative consequences for the acquisition of a second language (Felix, 1993). As a rule, however, support will have a positive
impact (Verhoeven, 1994; Westerbeek and Wolfgram, 1999)" (Neumann and Roth, 2006: 5).

In an earlier study entitled "Zweisprachigkeit und Schulerfolg ausländischer Kinder [Bilingualism and school achievement of foreign children]" (Bauer and Meder, 1989), the role of the first language in the school socialization of Greek, Yugoslavian and Turkish students was evaluated. The results showed that an above-average level of linguistic knowledge in the first language frequently correlated with superior knowledge of the second language and vice versa:

We can thus, with all conviction, claim that in the case of all three nationalities, better mother tongue proficiency corresponds to better German proficiency, a fact that validates the interdependence hypothesis (...). It has been found in all studied nationalities that in over $75 \%$ of cases, proficiency in German correlates with that of the mother tongue. ${ }^{61}$ (1989: 131, italics in the original)

Some studies provide data (albeit not systematically collected) about different aspects of the linguistic performance of students attending bilingual schools. One of the first attempts to implement bilingual instruction in Germany was the "Krefelder Modell," including the language combinations Greek-German and Turkish-German. German classes are attended by monolingual German students and by Turkish or Greek bilinguals, while the heritage language instruction is only attended by the minority language students. This group achieved higher results in mathematics and partially in "Sachunterricht" (see Glossary, p. 290), though their scores were poorer in German vocabulary tests.

Assessing English bilingual immersion classes in Schleswig-Holstein using a communication test, Wode et al. (1996: 26f) found out that, while pronunciation and morphology in the bilingual groups were not significantly better, there was a significant improvement as regards lexis. The students' vocabulary was broader, and, if synonyms were taken into account, was also more differentiated.

Sandfuchs and Zumhasch (2002), studying the results of four years of primary education in an Italian-German school in Wolfsburg, assessed proficiency in reading, spelling and mathematics. The highest levels of competence in German were generally attained by monolingual German students, a fact that was also confirmed for children from families where one or both parents came from Italy. Proficiency in Italian was higher amongst students whose families spoke Italian. In mathematics, the German monolinguals achieved better results than those whose mother tongue was Italian, although the difference was less pronounced than in the case of German language (Sandfuchs \& Zumhasch, 2002). However, it must be noted that

[^30]the socioeconomic status of the families was not controlled, which could account for the discrepancy in the results.

In an examination of free writing in a third grade Spanish-German class in Nürnberg that focused on spelling, syntax and lexis, this bilingual group showed the most visible enhancement in their performance in the German language (Kupfer-Schreiner, 1994). Conversely, the poorest levels of improvement were found amongst students with other heritage languages also attending the model. German is thus acquired by the students as a process and the different levels of improvement among the pupils are dependent on their linguistic knowledge at the beginning of school. As expected, the Spanish language was acquired in stages and the bilingual Spanish-German students were the first to improve their proficiency. The development of literacy in this class seemed to be deeply rule-based. According to Kupfer-Schreiner, pupils set up "critical rules" in order to steer their learning process and to blend in divergent linguistic features. Graefe-Bentzien's study of an Italian-German class of the "Europa-Schulen" in Berlin (2001) confirmed that L1 competence in a bilingual setting is not affected by the parallel acquisition of two languages. The basic skills of bilingual students were comparable to those of the monolingual control group, both in German and Italian. Making use of themes from social sciences, Graefe-Bentzien registered considerable improvements as regards concept formation, as well as general communicative performance.

Taking all of the studies conducted in Germany on dual language programmes into consideration, it can be concluded that the few bilingual primary schools offer largely positive data concerning the consequences of bilingualism: the students acquire both languages, although the positive impact on the German language is the most striking. According to Neumann and Roth, "...even the children with the smallest increase in knowledge are able to write texts in the new language and can speak fluently about topics of interest" (2006: 15). However, most of these studies were conducted at primary school level, with few evaluations of bilingual education at a secondary level. This study intends to fill this research gap.

## 4. Other bilingual models

While "bilingual education" has a very broad meaning in Germany, only a very small percentage of bilingual instruction is carried out in dual language programmes. The definitions range from total immersion programmes in Canada to the German model, where the percentage of subjects taught in a foreign language does not go beyond $20 \%$ of the whole school period (Baetens-Beardsmore, 1993). The term "bilingual education" is predominantly used to refer to those subjects at high school level which are taught in a foreign language, mostly English or French. The subjects are typically of a technical nature, for example, geography, chemistry or biology. A common use of the term bilingual education in the German context is "technical subject-oriented instruction which, from the perspective of the learners,
is conducted in a foreign language ${ }^{" 62}$ (Bonnet, 2004: 31). Therefore, in Germany the idea of bilingual schooling is largely associated with institutions such as the international private schools, predominantly using English CLIL programmes (Content and Language Integrated Learning). Following an evaluation of proficiency in high schools with such bilingual programmes, Bonnet came to the following conclusion:

The pupils that had been instructed bilingually were also found to be linguistically better than their peers who were not bilingually taught in the Niedersachsen schools (...). The biggest advantages were found in the area of reading comprehension, where, after one year, the bilingual pupils attained $20 \%$ higher test results on average. (...) Bilinguals also did better in general language proficiency. ${ }^{63}$ (Idem: 39)

In the DESI (Deutsch Englisch Schülerleistungen International) Study, intended to evaluate linguistic performance in German and English, a few bilingual classes were included in which instruction in history, politics, biology, arts and sport was given in English. Taking into consideration that such programmes tend to take place at a "Gymnasium" level, where the students normally have both a higher linguistic proficiency and social status, these factors had to be statistically controlled. Nevertheless, comparison of the performance of the students taking part in such programmes with the others evaluated in the study revealed:
... a substantial advantage in all English skills could be found for this group, ranging from 46 points in writing to 74 in listening-comprehension ... Taking into account the fact that the classes were mostly taught bilingually over a period of three years ( $7^{\text {th }}$ to $9^{\text {th }}$ ), it can be concluded that similar advantages happen every year and are accumulated. ${ }^{64}$ (Klieme et al., 2006: 59)

In the literature on bilingual programmes, the major distinction lies between submersion and immersion. Submersion programmes are those in which students with limited proficiency in the majority language are placed in ordinary classrooms in which this language, with the exclusion of all others, is used for instruction. They are normally given no special programme to help them overcome any language difficulties, and their native language is not used in the classroom. Hence, in the ma-

[^31]jority of cases, they cannot be referred to as special educational programmes. Such models are also called "sink or swim". According to Roth and Reich, "submersion is used in all German states for rapid integration into normal classes, and is the most common model ${ }^{י 65}$ (2002: 20).

However, in the US, some submersion models (also termed "structuredimmersion programmes") offer additional support to second language learners. In these cases, regular submersion classes are complemented by "pullout English" or "sheltered English" classes. For Baker, only the last type presupposes an adaptation of content and methods to the learners through "a simplified vocabulary, purposemade materials and methods such as cooperative learning" (1996: 156). In Germany, as in other European countries, submersion programmes are also partially complemented by extra classes offering special support in second language acquisition, as well as other additional support through heritage language instruction. For example, in Hamburg there are officially three types of heritage language instruction. The classes financed and organized by the Consulates ("Muttersprachlicher Ergänzungsunterricht") are held after school hours in different schools across the city. In the region of Hamburg, heritage language instruction ("herkunftssprachlicher Unterricht") takes place at approximately 50 schools in the city, run by a group of 25 teachers, and is integrated into the students' official timetable. In addition, there are a further 20 or so schools where classes are offered in the afternoons, alongside the core curriculum. Lastly, heritage language instruction is also organized by the schools, which hire their own teachers for this purpose. These classes also take place outside normal school hours and are thus not integrated into the core curriculum (Büchel and Bühler-Otten, 2003: 164f). The students also have other opportunities to develop their first languages, such as the classes in Portuguese, Polish and Croatian organized by the Catholic Mission in Hamburg. The main purposes of these initiatives are presented in the following terms:

> The pupils acquire skills in the areas of production (writing and speaking), comprehension (listening and reading), processing texts, reflecting about language and mediation. With language awareness-raising and reflection within the class, the pupils also acquire metalinguistic skills, which enable them to compare linguistic phenomena in their mother tongue with the German language. ${ }^{66}$ (Idem: 166)

The study Multingualism in Hamburg (Fürstenau, Gogolin and Yağmur, 2003), conducted as part of home language surveys in six European cities, demonstrates the relationship between attending such classes and increased proficiency. Particu-

[^32]larly as regards reading comprehension, the students who attend heritage language classes claim to read more and reveal higher levels of proficiency than those who do not take advantage of this offer. Similarly Rothe (2001) analysed four school districts in Baden-Württemberg and came to the conclusion that Italian-speaking students who attended heritage language classes had higher school outcomes than those who did not. Furthermore, studies in Austria (Grosse, 2000) and Holland (Westerbeek and Wolfgram, 1999) established a positive correlation between the attendance of heritage language programmes and second language acquisition, although the results were not consistent for all minority groups. It can thus be concluded that the submersion programmes at German schools are similar in some cases to the structured-immersion programmes in the USA, although not as widely implemented yet.

When analysing the literature comparing submersion programmes to bilingual instruction, we find, very early on in the discussion, statements such as: "At present, our best informed judgment forces us to conclude that bilingual education is indeed superior to submersion" (Hakuta and Snow, 1986: 3). As for immersion, a distinction between the American and the Canadian models must be made. Canadian-style immersion (CSI) is a programme in which English-speaking children, mostly middleclass, receive much of their subject-matter instruction in French. Most important is that the goal of CSI is bilingualism, not the replacement of one language with another. These programmes have received considerable attention due to their high success rates. Since the 1960s, the number of programmes has increased, and by 1990 the total number of students attending an immersion programme in Canada was estimated at 288,000 (Wode, 1995). There are four types of programme, depending upon the time when students started learning the second language:

- early-immersion: the second language dominates instruction from kindergarten or in the first grade;
- early-partial-immersion: both L1 and L2 are used from the outset, and simultaneously;
- delayed-immersion: the second language is introduced during primary education (mostly in the third grade);
- late-immersion: the second language is introduced after elementary education is concluded (from grade six onwards).

Assessments have shown that all students developed better proficiency in the second language compared to conventional foreign language classes, regardless of the type of programme, with no negative consequences for the first language (Swain and Lapkin, 1982). However, the early-total-immersion programmes were the most successful in promoting linguistic and technical knowledge in both languages. Even when taking into account such factors as IQ or socioeconomic status, the students attending immersion programmes did better than those attending other sorts of programme. The only differences found were within the area of technical communica-
tion, where intelligence appeared significant, as students with a higher IQ achieved better results in the tests measuring both productive and receptive skills.

Immersion, in the American sense, is also called "sheltered subject matter teaching" and was inspired by the accomplishment of CSI. It is subject-matter teaching conducted in a second language but made comprehensible. The vocabulary and sentence structure used in teaching school subjects is simplified in these programmes as students lack sufficient English-language skills to understand the regular curriculum. Results show that students participating in this type of programme develop linguistic proficiency in the receptive skills comparable to mother tongue speakers, but that productive skills are only acquired in order to complete the classroom tasks. Furthermore, linguistic development tends to stagnate when students have reached a level that enables them to cope with the situation in the classroom and even the most advanced students are weak with regard to grammatical accuracy. This situation (termed "fossilization") also seems to occur in the case of learners that are interested in improving their language level (Swain, 1993: 158f). Zydatiß (2000) believes that a similar phenomenon may be expected in bilingual programmes in Germany, for instance, where English is used to teach geography or social sciences. Relatively widespread are equally transitional bilingual education programmes which emphasize the development of English-language skills in order to enable students whose proficiency in English is limited to shift to an all-English programme of instruction. Some of these programmes include English as a second language. Normally, students are instructed in their mother tongue while taking lessons in the second language, two to four or four to six years before they can take part in a submersion class.

Another bilingual instruction method has been termed CLIL (Content and Language Integrated Learning) in which an additional language is used for both content and language. This form of content-based foreign language teaching has been considered by the European Commission as "a major contribution to make to the Union's language learning goals" (cf. Education and Teaching). ${ }^{67}$ According to surveys on CLIL programmes in Europe, evaluation has not been sufficiently consistent to allow a general statement on pupils' performance in comparison to schools without CLIL:

> The evaluation of aspects specific to CLIL type provision occurs neither frequently nor on a regular basis, and least of all when the target languages are foreign languages ... Yet where evaluation has been conducted both on pupil performance and the suitability of the methodologies adopted, the results have proven encouraging. (Eurydice, 2006:57)

Finally, there are also one-way bilingual education programmes, called languagemaintenance models, where one language group is schooled through two languages, for example in border regions. An overview of the different forms of education for bilingualism is given in Table 4, which draws on Baker (1996).

[^33]Table 4 - Overview of educational forms for bilingualism and biliteracy (based on Baker 1996: 175).

| Weak forms of education for bilingualism |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Type of programme | Typical type of child | Language of the classroom | Societal and educational aim | Aim in language outcome |
| SUBMERSION (structured immersion) | Language minority | Majority language | Assimilation | Monolingualism |
| SUBMERSION with withdrawal classes | Language minority | Majority language with "Pull-out" L2 lessons | Assimilation | Monolingualism |
| SEGREGATIONIST | Language minority | Minority language (forced, no choice) | Apartheid | Monolingualism |
| TRANSITIONAL | Language minority | Moves from minority to majority language | Assimilation | Relative monolingualism |
| MAINSTREAM with foreign language teaching | Language majority | Majority language with L2/L1 lessons | Limited enrichment | Limited bilingualism |
| SEPARATIST | Language minority | Minority language (out of choice) | Detachment <br> Autonomy | Limited bilingualism |
| Strong forms of education for bilingualism and biliteracy |  |  |  |  |
| Type of programme | Typical type of child | Language of the classroom | Societal and educational aim | Aim in language outcome |
| IMMERSION | Language majority | Bilingual with inItial emphasis on L2 | Pluralism and enrichment | Bilingualism and biliteracy |
| MAINTENANCE / HERITAGE LANGUAGE | Language minority | Bilingual with emphasis on L1 | Maintenance, pluralism and enrichment | Bilingualism and biliteracy |
| TWO-WAY / DUAL LANGUAGE | Mixed language Minority and majority | Minority and majority | Maintenance, pluralism and enrichment | Bilingualism and biliteracy |
| Bilingual eduCATION IN MAJORITY LANGUAGES | Language majority | Two majority languages | Maintenance, pluralism and enrichment | Bilingualism and biliteracy |

Key: (1) L2=Second language; L1=First language; FL=Foreign Language

## 5. Conclusions: from a monolingual to a bilingual habitus

The bilingual educational programme conducted at the Rudolf Ross School is a dual language model of the 50:50 type, referred to in Canadian terms as earlypartial immersion. As mentioned above, this type of model is not as successful in promoting full bilingualism and biliteracy as 90:10 (or early-total-immersion) programmes, but the students generally attain grade level proficiency or above in the second language.

Baker claims that "bilingual education, whatever form it takes, cannot be properly understood unless it is connected to basic philosophies and politics in a society" (1996: 247). He establishes a difference between three attitudes in the official discussion around bilingual education: multilingualism as opportunity, multilingualism as problem and multilingualism as right. The policies of the European Union, founded on "unity in diversity" (diversity of cultures, customs, beliefs and lan-
guages) foresee a celebration of linguistic heterogeneity not only within the official languages but also regarding the non-indigenous languages spoken by migrant communities. Article 22 of the Charter of Fundamental Rights of the European Union (cf. Official Journal) states that the Union shall respect cultural, religious and linguistic diversity, while prohibiting (in Article 21) discrimination based on a number of grounds, including language. "Action by the Union and the Member States to uphold multilingualism therefore has a direct impact on the life of every citizen" (Commission of the European Communities ${ }^{68}$, 2005: 2). However, although the official attitude is based on the encouragement and promotion of multilingualism, there are still many voices that see linguistic diversity as a problem (SiebertOtt, 1999). Gogolin's theory (1994) of the existence of a monolingual habitus permeating the German educational system substantiates the expansion of such attitudes in pedagogical discourse. At the Rudolf Ross school one might dare to speak of a bilingual habitus.

# IV. The Portuguese community in Hamburg and Germany 

> Portugal befindet sich mitten in einer Wandlungsphase einer jahrhundertealten Migrationsgeschichte. Von einem klassischen Auswanderungsland ist es in den Jahren seit dem EG-Beitritt 1986 (auch) zum Einwanderungsland geworden. Immer weniger Portugiesen kehren ihrer Heimat den Rücken, während immer mehr frühere „Gastarbeiter" zurückkommen und neue Einwanderer in Portugal eintreffen. Ekkehart Schmidt-Fink

Portuguese emigration is a historical phenomenon that began some five centuries ago with the Discoveries of the $15^{\text {th }}$ and $16^{\text {th }}$ centuries, reaching a peak in the second half of the $20^{\text {th }}$ century. Over the years, the conditions and destinations of these migratory movements have changed radically, as have the reasons for them (which have included economic, social, religious and political motives). The result has been a large Portuguese Diaspora throughout the five continents.

This chapter will provide a brief overview of the Portuguese presence in Germany, followed by a description of the present situation of Portuguese migrants in the country. Finally, a short assessment will be made of the status of the Portuguese language, in order to better understand the situation of the Portuguese-German bilingual students used in the sample.

## 1. General features of Portuguese emigration

It can be argued that Portuguese emigration started when the archipelagos of Madeira and Azores were discovered at the beginning of the $15^{\text {th }}$ century. From that moment on, a need was felt to colonize these deserted islands and discover other territories along the African coastline. When the southernmost tip of Africa was rounded, the Portuguese spread across the East, going as far as India, Malaysia, Australia and Timor. When in the $18^{\text {th }}$ century gold and precious stones were discovered in Brazil, emigration toward South America boomed and in less than a century, some eight to ten thousand Portuguese had left their country to settle permanently in Brazil.

Around the middle of the $18^{\text {th }}$ century, when the decline of Portuguese naval eminence became apparent, colonization decreased and the country collapsed into an economic crisis. This brought about another type of emigration, caused by poverty, unemployment and the lack of basic resources. During the last decade of the $19^{\text {th }}$ century alone, approximately 28,000 Portuguese citizens spread around the world, resulting in one of the biggest trans-oceanic migratory movements in history.

After 1911, with the collapse of the monarchy, Portugal was ruled by a dictatorship, which only came to an end in 1974 with the "revolução dos cravos" ("Carnation Revolution"). With the two World Wars, migration slowed and Portugal, shar-
ing some of the fascist ideological trends of the time but being small and powerless, was more or less isolated.

Emigration increased again after the Second World War. Trans-oceanic migration declined, while the intra-European variety became more prevalent. The main destinations were Switzerland (which has 136,000 Portuguese immigrants), Germany $(132,000)$ and especially France, where approximately one million Portuguese migrants have their homes today.

According to Arroteia (1987), 4,6 million Portuguese citizens currently live somewhere in one of the five continents: in Europe (1,336,700), in Africa $(540,391)$, North America $(1,015,300)$, South America $(1,617,837)$, Central America $(6523)$, Asia $(29,271)$ and Oceania $(55,459)$.

This massive emigration has led to a series of measures designed to help the integration of the emigrants abroad, developed by the Portuguese government (taking into consideration that emigrants contribute $4 \%$ to the gross domestic product). In addition to the network of consulates and embassies, a Council of Portuguese Communities ("Conselho das Comunidades Portuguesas") was set up to simplify access to information and monitor the activities going on in the different countries. The Government also supports associative initiatives, educational programmes and industrial activities.

## 2. Brief history of the Portuguese presence in Germany

The history of the migratory connections between Portugal and Germany started in 1147, when approximately four thousand German sailors, part of an international fleet, took part in the conquest of the city of Lisbon, which had been held by the Moors since 711. This (re)conquest of the Iberian Peninsula (called the "Reconquista") lasted around eight centuries, only coming to an end in 1492 when the "Catholic Monarchs" (Isabel I of Castile and Ferdinand II of Aragon) won back the kingdom of Granada from the Muslims. Many of the Germans who helped conquer Lisbon stayed on in Portugal. Then, in the $15^{\text {th }}$ century, another group of Germans, mostly merchants, mercenaries and artisans, settled in Lisbon, in order to take advantage of the economic boom brought about by the Discoveries. More recently, a group of around 80,000 political refugees, fleeing Nazi Germany and Austria, passed through Portugal on their way to America - when Lisbon was known as "the harbour of hope" (Schmidt-Fink, 2000). Amongst them were some wellknown names such as Alfred Döblin, Heinrich Mann and Stefan Zweig. From this large group of people there were many who could not board to America and were forced to stay in Portuguese asylum until the end of the war. Those without an official residence permit or a visa to allow them to continue their journey were required by the Salazar authoritarian regime to live in small towns like Ericeira.

However, to better understand the current situation of Portuguese emigrants in Germany, it is worth examining more closely the historical facts concerning Germany's labour policy in the last fifty years.

The end of the Second World War brought about fast economic growth in Germany, along with the need to recruit workers able to help in the rebuilding of the economy. With the losses incurred during the war, West Germany was forced to look abroad for its workers, and during the 1950s and ' 60 s, a series of agreements were signed allowing the entrance of foreign workers - "Gastarbeiter" (see Glossary, 289) (guest workers) - for the amount of time needed to boost the economy (Gogolin, 2001). During the first thirteen years of this period, Germany recruited workers from eight countries, signing different agreements with Italy (1955), Spain and Greece (1960), Turkey (1961), Morocco (1963), Portugal (1964), Tunisia (1965), and the former Yugoslavia (1968). At that time, Portugal was undergoing economic crisis, while Germany, a decade after World War II, was experiencing its so-called "Wirtschaftswunder" ("wonder economy"); therefore, this immense organized recruitment of workers was particularly appealing to Portuguese workers, mostly originating from rural areas. Soares states:

In those days, workers were acquired in a contractually-fixed context, in which the conditions of foreign workers were protected. The 'guest workers' had the same tax and social benefit status as German workers in the same sector, and the duration of the contract and area of work were determined at the beginning. Workers were also entitled to accommodation and to transfer their salaries to their home countries. ${ }^{69}$ (2002: 22)

At the time, this flow of foreign citizens into Germany caused a wave of contradictory reactions from the population, politicians and, of course, the media. For instance, according to statistics from the "Bundesanstalt für Arbeit," there were, in June 1964, 3463 Portuguese workers in Germany. However, the numbers reported by the press were strikingly higher:

According to employers' associations, about 10,000 to 12,000 Portuguese now work in the Federal Republic of Germany, because recruitment has started only during the last months. Italians account for the largest percentage of foreign workers ( $31 \%$ ), though in their case, immigration is slowly decreasing, because they are able to find work in their own country. After them are the Spaniards with $15.5 \%$ and the Greeks with $15.4 \%{ }^{70}$ (Süddeutsche Zeitung 11.09.1964)

69 "Die damalige Arbeitskräfteanwerbung vollzog sich in einem vertraglich festgesetzten Rahmen, in dem die Bedingungen für die Anwerbung ausländischer Arbeitskräfte abgesichert wurden. Die 'Gastarbeiter' waren deutschen Arbeitskräften des gleichen Sektors tarif- und sozialrechtlich gleichgestellt, bei der Vermittlung wurden gleich zu Beginn Vertragsdauer und Einsatzbereich des Arbeitsverhältnisses festgesetzt. Zudem wurden Unterkunft und Recht auf Lohntransfer in das Heimatland gewährt."
70 "Nach Angaben der Arbeitgeberverbände sind bisher etwa 10000 bis 12000 Portugiesen in der Bundesrepublik Deutschland beschäftigt, da die Anwerbung erst in den letzten Monaten angelaufen ist. Die Italiener stellen mit 31 Prozent den Hauptanteil. Bei ihnen lässt die Zuwanderung bereits

In the first years of recruitment, Portuguese workers were mostly men aged between 30 and 35 years old. Alves (1996) points out that since 1961, the year the colonial war began, many young men tried to escape the country. In 1964 alone, 80,000 men were recruited to serve in Angola. Hence, from 1965 onwards, a considerable number of these men, after completing their military service overseas emigrated to Germany. The Portuguese government actually supported this type of emigration, as it was not only a way of exporting the surplus of workers but also a means to finance the war through the capital sent back into the country by the emigrants (Soares, 2002).

From 1965 on, a very curious fact happened: this year could be considered the first year that individuals proceeded to Germany 'having completed their military service overseas'. In fact, the emigration services even had instructions to speed up the process, especially for those who had fought in the Colonial Wars and now intended to emigrate to Germany (France or Luxembourg). ${ }^{71}$ (Alves, 1996: 83)

The economic crisis at the beginning of the 1970s caused much debate in Germany, leading to the end of these recruitments in November 1973. However, the intention of gradually reducing the number of foreigners in this way did not work as expected, and the family reunion programmes, introduced to improve the integration of the foreigners who intended to stay in the country, increased the foreign population even more. As Gogolin noted:

Relatively soon after the first recruitments, which were aimed at single workers (male or female), movements developed among the migrants, and soon after, legal and administrative measures were taken by states, leading to the subsequent immigration of family members or the legitimization of their position. ${ }^{72}$ (2001: 264)

Hence, immediately after the beginning of recruitment of male workers, women began to play an important role. Between 1964 and 1967, the number of women migrating to Germany rose from 900 to 4500 (Pelotte, 1995: 404), which suggests that they were not only being brought in to support their husbands but that they were looking for better work prospects themselves. According to Treibel, women migrants accounted for $30 \%$ of the total number of immigrants in 1965 (1999: 122).

[^34]After the Revolution of 1974, many Portuguese workers returned to their home country and migration in general diminished. This decrease only came to an end with the integration of Portugal in the European Community in 1986 and, particularly, in 1991, when the free movement of people among EU citizens was implemented.

Since the 1990s, the number of foreigners in Germany has tended to stabilize; in fact, it decreased between 1999 and 2000 from 7,343 million to 7,296 million. Portuguese migrants are the $9^{\text {th }}$ largest minority group, corresponding to $1.8 \%$ of all foreigners.

According to the report produced by the Portuguese Embassy in Berlin (2004), Portuguese immigration into Germany can be divided into four stages. The first, due mainly to the economic and social crisis in Portugal, took place from 1962 to 1973 and resulted in an intense migratory movement to this country. The time was favourable for the entrance of foreign workers due to low birth rate in Germany caused by war, as well as to the reduction in work hours and retirement age, which led to a lack of labour. As a result, 169,000 Portuguese citizens migrated to Germany and only 53,000 left the country, leaving a total of 116,000 .

From 1974 to 1985, the most striking feature of Portuguese migration was the return to Portugal, linked to the hope created by the Revolution and the overthrow of the dictatorship on $25^{\text {th }}$ April 1974. At the same time in Germany, attempts were being made to reduce the number of foreign workers and various measures were taken to support the departure of the migrants. Therefore, this decade ended with a reduction of the number of Portuguese in Germany to 70,000.

From 1986 to 1996, however, there was a decrease in the number of migrants wishing to return home. Portugal had now acceded to the European Union (or the EEC, as it was then), and reunification had taken place between East and West Germany. The reconstruction of the former GDR resulted in a need for new workers, who could now move freely within the EEC. Consequently, during the first half of the 1990s, there were between 6000 and 12,000 new migrants coming to Germany every year.

Since 1997, this trend has slowed, possibly due to the recession in the labour market. Stagnation is the word that can best describe Portuguese migration into Germany over the last five years. Although by the end of the year 2000 the number of Portuguese migrants had reached its highest level $(133,726)$, the overall tendency shows a small drop in numbers.

In all, during 40 years of Portuguese migration to Germany, 431,000 people entered the country and 332,000 left it.

## 3. Present situation of the Portuguese migrants in Germany

### 3.1 Geographical distribution

Portuguese migrants are scattered throughout the country, having tried mostly to settle where they already had family or friends. The highest numbers of Portuguese are to be found in the most industrialized areas of the country, namely NorthrhineWestfalia, Baden Württemberg, Hessen, Hamburg, Bavaria and Lower Saxony (in West Germany) and Saxony and Saxony-Anhalt (in East Germany).

Since 1993, when the second wave of emigration started, the tendency has been to settle in Berlin or Bavaria. Berlin and some of the new states drew the immigrants because of the boom in the construction industry, which reached its peak in 1995, while the pull towards Bavaria was due to developments in the economy and job market. However, the biggest concentration of Portuguese migrants can still be found in larger urban areas such as Hamburg, Berlin, Frankfurt, Munich, Bremen and the Ruhr area. The overall distribution of Portuguese migrants in 2004 is displayed in Figure 7.


| $\square$ Hamburg | $\square$ Bavaria |
| :--- | :--- |
| $\square$ Lower Saxony | $\square$ Bremen |
| $\square$ Hessen | $\square$ Baden Württemberg |
| $\square$ North Rhine Westfalia | $\square$ Schleswig-Holstein / Saarland |
| $\square$ Berlin | $\square$ Saxony |
| $\square$ Saxony Anhalt | $\square$ Brandenburg / Thuringia / Mecklenburg-Vorpommern |

Figure 7 - Distribution of Portuguese immigrants in Germany.

### 3.2 Age and gender

One of the most striking features of the Portuguese community is the number of people in their 60s. This is partly due to the decrease in those wishing to return to Portugal as soon as retirement age is reached, and also to the fact that $40 \%$ of the whole community has been living in Germany for over 20 years. This last example shows how entrenched that pattern is. Nevertheless, the Portuguese community still has a significant number of younger people, as $27 \%$ are under 25 and $38 \%$ between 25 and 40 (Figure 8).


Source: Statistisches Bundesamt, 2004.
Figure 8 - Age distribution of the Portuguese community.
As far as gender is concerned, the balance between the number of men and women has fluctuated. The men came first, found a job and only then brought over their wives and families. As a result, until 1993 (the stabilization phase after the beginning of the migratory movements), there was an almost equal number of men and women. However, the development of the construction industry in the East and the boom of migration to the new states generated a new imbalance and an increase in the male population. Then in 1997, when the construction market entered a crisis, a new stabilization phase began and the number of women increased again.

In 2000, the percentage of Portuguese men and women living in Germany was approximately $56 \%$ men and $44 \%$ women. The current trend shows an increase in the number of women and thereby an equalization of the two populations.

### 3.3 Duration of stay in Germany

According to the report of the Portuguese Embassy in Berlin (2004), there are two different trends in the evolution of the community, as far as the duration of their stay in Germany is concerned. On the one hand, the number of migrants living in this country for over twenty years is increasing, which shows a preference for settling down and forming a life here. On the other hand, the number of migrants that stay in Germany less than one year or from one to four years (figures that were very high during the 1990s) is now visibly decreasing, due to the slowing-down of the construction industry in the East. All other age groups in between are increasing. As indicated by the "Statistisches Bundesamt," the number of Portuguese migrants according to age groups is presented in Figure 9.


Source: Statistisches Bundesamt, 2004.
Figure 9 - Duration of stay in Germany of the Portuguese community.

### 3.4 Employment situation

According to the "Bundesanstalt für Arbeit", there were 48,687 employed Portuguese migrants in Germany in 2001, which represents $2.4 \%$ of all foreign workers in the country. Comparing the rate of activity ${ }^{73}$ of the main foreign communities living in this country, the Portuguese register a high level, some way above the average. However, the current trend shows a decrease in the numbers, since unemployment is on the rise and the construction market has slowed down in the East. In 2004, the activity rate of the Portuguese was $36.8 \%$, even though the so-called active population ( 18 to 60 years old) numbers 101,387 ( $75.8 \%$ ). The main activities of the Portuguese are in industry ( $34.5 \%$ ), trade and food industry ( $18.3 \%$ ) and the construction business (13\%), although this sector is decreasing.

### 3.5 Unemployment

Over the past few years, changes in the German work market have particularly affected foreign workers, as they often lack the skills to respond to the growing technological demands of a market that is becoming ever more complex. In addition, some of the production formally carried out in Germany has now moved to other countries where wages are lower, thus reducing the need for unskilled labour.

As a result, unemployment has risen among German citizens and is particularly acute within the foreign communities living in Germany, especially the Turkish and Italian. The Portuguese have a relatively low unemployment rate compared to the other communities, but even so, it is slightly higher than the national German average. Over the last eight years, there has been an increase: in 1990 there were 2436 Portuguese officially unemployed, while by 1998, this number had reached 8030. From 1998 onwards, there was stabilization and even a small reduction in the unemployment rate among the Portuguese. However, according to the Portuguese

[^35]Embassy in Berlin, without investment in the education and technical training of the workers, this number will increase. In 2004, $83.7 \%$ of the unemployed Portuguese had no professional qualifications.

### 3.6 School, professional training and university

According to the "Statistisches Bundesamt," in the year 2004, there were 13,065 Portuguese students enrolled in German state schools, a figure which accounts for $89.8 \%$ of the 14,545 Portuguese youngsters between the ages of six and eighteen. Most of these students (ca. 49\%) attend a "Hauptschule", while the rest go to a "Realschule" (ca. 22\%), "Gymnasium" (see Glossary, p. 290) (ca. 19\%) or "Gesamtschule" (see Glossary, p. 289) (ca. 12\%).

Over the last ten years, two important trends have emerged: first, the number of Portuguese students enrolled in a "Gymnasium" has diminished; second, the number of students attending special schools destined to improve the German language ("Sonderschulen") has increased. In comparison to the other five groups, only the Greeks and Spaniards have a higher percentage of students enrolled in a "Gymnasium." However the difference is insignificant. Siebert-Ott points out that some of the differences between the minority groups in Germany are, nonetheless, important:

In this respect, reports from foreign representatives (like comparable studies from neighbouring European countries and classic immigration countries like Canada and the USA) indicate clear differences between the various immigration groups. The most successful pupils tend to be from Spanish, Greek or Portuguese families, while pupils of Turkish and Italian origin achieve much lower educational levels (secondary education, school-leaving exam) than the pupils of the groups mentioned above and pupils from the German majority society. ${ }^{74}$ (Siebert-Ott, 1999: 11)

As far as professional training is concerned, there is a trend towards an increase in the number of young Portuguese participating in the German technical and vocational training system ("Ausbildung"). Although the figure continues to be low when compared to German youngsters, it is relatively high compared to other immigrant groups. According to Teixeira, "though Portuguese young people have less vocational training than Germans, when we compare them to other immigrants (ex-

[^36]cept the Spaniards), they generally have better professional qualifications",75 (Teixeira, 2004: 89). Vocational preference (in the choice of the "Ausbildung") is shown for industry, banking and commercial sectors. Teixeira concludes that "(...) over $60 \%$ of Portuguese trainees work in professions where there is a high demand for learned skills and the opportunities in the labour market are good ${ }^{, 976}$ (idem: 90).

The Portuguese presence in German Universities is still significantly low. In 2004, there were 1527 Portuguese students attending a German University. Here, there is a significant difference between the Italian, Turkish and Portuguese communities, which have few students at university, and the Spanish and Greek, who have a considerable number of young people between eighteen and twenty five, enrolled at a university.

### 3.7 Marriages, naturalizations and births

Since 1975, the number of marriages between Portuguese and Germans has gradually increased, although population fluctuations do not allow precise figures to be given. However, it seems to be more common for a Portuguese citizen to marry someone from another community, rather than a German.

The number of Portuguese citizens that choose to adopt German citizenship is very small, even following the changes to German law on this topic. The number of naturalizations is on the increase, however, but is still too insignificant to predict a future trend. The number of Portuguese citizens born in Germany has increased proportionately, as compared to the total Portuguese population.

## 4. The status of the Portuguese language

Portuguese is the sixth language of the world as regards the numbers of native speakers (over 200 million), and the first in South America ( 186 million which makes over $51 \%$ of the population). It is also the official language in Angola, Portugal, Brazil, São Tomé and Príncipe, East Timor and the most widely used language in Mozambique. It is also widely spoken in Luxembourg, Andorra, Paraguay and Namibia, although not being an official language of those countries. There are also Portuguese Creoles, which derive from the Portuguese language and are of considerable importance in Africa (eg. Portuguese Creoles spoken in Cape Verde, parts of Guinea-Bissau and also in Senegal and Gambia). Portuguese pidgins still exist in Angola and Mozambique, uncreolized. Indeed, a Portuguese pidgin, known

[^37]as Pequeno Português (literally "little Portuguese") is still used as lingua franca between different Angolan tribes.

There are large Portuguese-speaking immigrant communities in many cities around the world, such as Montreal and Toronto (Canada); Paris (France); Asunción (Paraguay); Boston, New Bedford, Cape Cod, Fall River, Providence, Newark, New York, Orlando, Miami, Sacramento, Honolulu and Houston (United States); Buenos Aires (Argentina), Montevideo (Uruguay), and Nagoya and Hamamatsu (Japan). Portuguese is spoken by approximately 187 million people in South America, 17 million in Africa, 12 million in Europe, 2 million in North America and 610,000 in Asia.

In 1996, the Comunidade de Países de Língua Portuguesa (Community of Por-tuguese-speaking countries - CPLP) came into existence, involving seven countries: Brazil, Angola, Mozambique, Cape Verde, Guinea-Bissau, Portugal and São Tomé and Príncipe. In 2002 East Timor also joined the community after regaining independence from Indonesia. At present, the main activities of the community are centred around linguistic and cultural initiatives between countries, and programmes to reduce poverty, hunger and disease. A "Centre for the Development of Entrepreneurial Skills" has also been created to expand the community's activities to the economic sector.

Within Europe, Portuguese was for a long time the language spoken in one of the poorest countries and by its immigrants, living mostly in France, Luxembourg, Switzerland and Germany. However, since 1986, when Portugal joined the European Union, there has been a marked improvement in the legal conditions of emigrants and also in the value of the language, which is no longer perceived only as the language of workers. Nevertheless, the value of the Portuguese language is still of relative importance, as it belongs to the group of "official languages" but not to the so-called "working languages". Portuguese is one of the smallest languages within the European Union (cf. Table 5), even when considering the number of native speakers and the speakers as a foreign language. Only $2 \%$ of speakers in the European Union claim to speak Portuguese as a mother tongue and almost no speakers use it as second or foreign language. Yet, the prestige of the language has increased upon entering the European Union: "The social value of a language is closely related with the social status of its speakers, and it becomes clear that Portuguese as a language of EU citizens has a higher prestige than as a language of work migrants" ${ }^{77}$ (Fürstenau, 2004: 45).

[^38]Table 5 - Proportion of European citizens who can speak each of the official languages of the Union, either as mother tongue or as non-mother tongue (including as foreign language).

| Language | Proportion of EU population speaking it |  |  |
| :--- | :---: | :---: | :---: |
|  | as a mother tongue | as a non-mother tongue | Total proportion |
| German | $18 \%$ | $12 \%$ | $30 \%$ |
| English | $13 \%$ | $34 \%$ | $47 \%$ |
| Italian | $13 \%$ | $2 \%$ | $15 \%$ |
| French | $12 \%$ | $11 \%$ | $23 \%$ |
| Spanish | $9 \%$ | $5 \%$ | $14 \%$ |
| Polish | $9 \%$ | $1 \%$ | $10 \%$ |
| Dutch | $5 \%$ | $1 \%$ | $6 \%$ |
| Greek | $2 \%$ | $0 \%$ | $2 \%$ |
| Portuguese | $\mathbf{2 \%}$ | $\mathbf{0 \%}$ | $\mathbf{2 \%}$ |
| Swedish | $2 \%$ | $1 \%$ | $3 \%$ |
| Russian | $1 \%$ | $5 \%$ | $6 \%$ |
| Danish | $1 \%$ | $1 \%$ | $2 \%$ |
| Finnish | $1 \%$ | $0 \%$ | $1 \%$ |

Source: Eurobarometer 2005 ${ }^{78}$
Scotti-Rosin, summarizes the situation as follows: "In Germany and the other Ger-man-speaking countries, Portuguese belongs in the category of languages that are not spoken, despite Portugal's membership in the European Union",79 (1997a: 319).

In Germany, Portuguese is mainly spoken by immigrants from Portugal, Brazil, Angola, Mozambique and the Cape Verde islands. Therefore, it is part of the native language instruction programme ("Muttersprachenunterricht") existing in Germany since 1970. In Hamburg, these programmes, which take place outside school hours, were at first mostly funded and organized by the countries themselves. Then, from 1997 onwards, with the new Schools Act (cf. Hamburgrisches Schulgesetz), local authorities began to support some of the costs. Although Turkish is the most common language being taught in these afternoon programmes, Portuguese is also becoming increasingly common in certain areas of the city (Büchel and Bühler-Otten, 2000). ${ }^{80}$

Another important institution for the teaching of Portuguese is the Catholic Mission in Hamburg, which has offered Portuguese classes to immigrant pupils since 1973. The courses last a whole school year and are organized in a similar way

[^39]as the Portuguese high school, although, due to lack of time, they only take place two afternoons per week (each three hours). According to Fürstenau, most Portuguese youngsters attend at least one of these two forms of Portuguese classes.

According to the education attaché of the Portuguese Consulate, in the year 2000 approximately 750 of the 1000 children and young people of Portuguese origin living in Hamburg attended complementary Portuguese lessons during the afternoon (at either State or Catholic institutions). ${ }^{81}$ (2004: 64).

The importance of the Portuguese language and also its vitality for the community was evaluated in a study conducted with primary school pupils:

About $90 \%$ of the children claim that they can understand and speak Portuguese. As for
reading and writing skills, these are usually acquired at an older age by most children. ${ }^{82}$
(Fürstenau, Gogolin and Yağmur, 2003: 90 )
Apart from this type of native language instruction programmes, which are destined to serve the immigrants themselves, there are two projects that call attention to the Portuguese language on a larger scale. Since 1992, there have been three bilingual Portuguese-German schools amongst the Europe Schools in Berlin: one primary school, a "Realschule" and a "Gymnasium." These schools are destined for Ger-man-speaking children as well as for Portuguese-speaking children. The Hamburg project, to which the Portuguese class in this study belongs, has also attracted much attention from the media and researchers.

Some high schools, mainly "Gymnasien", offer Portuguese from the tenth grade, as a third foreign language, after English and French or English and Spanish (Scotti-Rossin, 1997b). Nonetheless, this subject is not compulsory, as it is part of a range of other possible options, which do not form part of the core curriculum. In some "Gymnasien" (for example, in Dortmund, Bavaria, Hamburg and RheinlandPfalz), Portuguese can be learned until the attainment of the "Abitur" (see Glossary, p. 289) (idem: 83).

However, the main obstacle discouraging the learning of Portuguese is the fact that most of the institutions offering tuition in the language, as L1, L2 or as a foreign language, do not supply officially-recognised certificates. For example, the certificates offered by the Portuguese school at the Catholic mission in Hamburg and the native language instruction programmes taking place in the afternoons have more symbolic, than official, value, and cannot be compared to the final diplomas offered by French and English schools. However, "the certificates offer proof of proficiency in the Portuguese language and can help with relocation to Portugal for

[^40]the purposes of education or to gain entry into a Portuguese company" ${ }^{83}$ (Fürstenau, 2004: 64).

The question of a return to the homeland, in which such certificates could play a role, is very much debated within immigrant communities in Germany. As regards Portuguese immigrants in particular, the idea of the possible regresso has long been a regulating factor of the Portuguese presence in Germany (Gralha, 2004). Yet the statistics concerning the return of immigrants within the community show that there is indeed a considerable fluctuation, though in most cases, the intended regresso does not take place, and if it does, it is rarely before pensionable age. According to Gralha, this is especially significant regarding the education of Portuguese students:

According to the Federal Institute of Statistics, there were 132,625 Portuguese citizens living in this country on $31^{\text {st }}$ December 2001, of whom $60,187(45 \%)$ had been here for over 15 years and $19 \%$ for over 25 years. $42 \%$ had resided here for less than 10 years, of which only $39 \%$ were women. Why are these data relevant? Because they are essential for the definition of a solid language policy that corresponds to the interests of the community. The teaching of Portuguese language will take this situation into account, preparing young people not for the 'return' that may never happen, but for better integration into German society. ${ }^{84}$ (2004: 94)

It is possible to study Portuguese Language and Linguistics in some universities in Germany, both as major and minor subject (the first degree and Master's degrees are still called "Lusitanistik" in some institutions). In some cases, such as Hamburg, there is a long tradition of such courses. However, reasons for learning seem more related to individual interests and hobbies (for instance, tourism) than with economic value and benefits, although there is increasing interest in Brazil due to its importance as one of Germany's trade partners (Scotti-Rosin, 1997b: 834). In recent years, economic activity with Portugal has increased, which has also brought a slight rise in the number of learners (cf. Verband Portugiesischer Unternehmer in Deutschland, with members from both countries). However, the case of the Portuguese at a higher education level in Germany can be compared to the situation already described at the school level:

[^41]As in the general school system, Portuguese has not spread much at higher education level, although the number of universities offering courses in Portuguese has increased during the last years. ${ }^{85}$ (Idem: 837)

Hamburg is, nevertheless, an exception as far as the status of Portuguese immigrants and language is concerned; it includes the largest Portuguese community in Germany, the most associations and clubs and even has its own Portugiesenviertel (Portuguese quarter - cf. Szene Hamburg 2001, Nr. 7). The Portuguese language can also be learned at the Rudolf Ross School, and as home language programmes at several schools, at a few "Gymnasien" as mother tongue and foreign language and at the University. Since 2002, Portuguese Language Centre / Camões Institute ${ }^{86}$ has been responsible for language teaching and cultural activities at the University.

## 5. From a country of emigration to a country of immigration

One of the problems besetting Portugal today is the limited capacity of its labour force to respond to increased productivity (a situation very similar to that faced by Germany 50 years ago). The problem is exacerbated by the low birth rate, ageing population, and emigration. Therefore, in order to compensate for these tendencies, Portugal needs the work of immigrants. Thus, since about 1980, there has been a new migratory phenomenon, as Portugal began to receive immigrants; the number of immigrants settling in Portugal increased from 50,750 in 1980 to 449,016 at the end of 2004. These numbers refer, of course, to legal immigrants. However, in April 2002, it was estimated that there were a total of 200,000 illegal immigrants living and working in Portugal (cf. Imigrantes $2004^{87}$ ). According to the Observatório da Imigração ${ }^{88}$, immigrants accounted for $5 \%$ of the population in 2003, a proportion that is increasing rapidly. Despite this, official prognoses actually anticipate a lack of workers in areas as cleaning, construction, agriculture and catering in the coming years (cf. Diário da República, November 2001).

As expected, the largest immigrant communities in Portugal (discounting citizens of European Union member states) are from African countries belonging to the Lusophone PALOP group (Países Africanos de Língua Oficial Portuguesa), particularly Cape Verde, Angola and Guinea-Bissau. However, a breakdown of nationality (cf. Table 6) shows that Ukrainians formed the largest immigrant group in Portugal in May 2002 (cf. Immigration Statistics $2003^{89}$ ), and that other Eastern Europeans, such as Romanians, Moldavians and Russians, are amongst the ten

[^42]most important non-European Union immigrant communities in Portugal. Immigration from Brazil has also played an important role since 1999 and the Brazilian community is now the third largest in Portugal.

Table 6 - Number of non-European Union foreigners with a visitor or resident permit by nationality.

| Nationality | Year 2004 |
| :--- | ---: |
| Ukraine | 60,571 |
| Cape Verde | 59,678 |
| Brazil | 58,370 |
| Angola | 31,332 |
| Guinea-Bissau | 22,855 |
| Moldavia | 11,817 |
| Romania | 10,673 |
| S. Tome and Príncipe | 8,951 |
| Russia | 7,096 |
| Mozambique | 5,312 |
| Total | 276,655 |
| Other nationalities | 63,532 |
| Total | 340,187 |
| Sore: |  |

Source: Alto comissariado para a Imigração e Minorias Étnicas, 2004
Although immigration has been very positive for the economy (Rita \& Rita, 2004), the Portuguese school system seems unable to cope with the linguistic diversity, resulting from the arrival of children with different mother tongues. Already some communities are denouncing the lack of consideration for the heritage languages shown by most schools. In this respect, the President of the Respublika Association of Russian immigrants recently pronounced upon the right of immigrants to the preservation of their cultural heritage, as well as their language. ${ }^{90}$

According to the Ministry of Education, in the year 2003/2004 more than 81,000 students attending the Portuguese school system came from families with a migration background. In an interview, a representative of the kindergarten and primary school teachers claimed that there were already schools where the great majority of the pupils were of foreign origin (cf. Público 15.02.2006).

In a study entitled "Diversidade linguística na escola portuguesa" (Linguistic Diversity in Portuguese Schools) (2006), a total of 410 schools in the Greater Lisbon area were analysed in terms of linguistic diversity, in a first phase, and diagnostically, in a second. The results regarding the level of Portuguese as a second language are not yet not available, but the preliminary data has been analysed and indicate that $11 \%$ of pupils are of foreign extraction, and that there are 58 heritage languages.

[^43]While the country needs to face up to the challenge of linguistic diversity, the European Parliament recently approved a resolution about the role of public school and multilingual teaching in the integration of immigrants within the European Union. This was based on a report prepared by Miguel Portas, a European deputy, in the wake of a visit to the Portuguese-German school in Hamburg:

On a visit to the city of Hamburg, we were able to witness the gradual expansion of this [bilingual teaching] system. (...) It is very impressive to spend a day in a school with 'mixed classes' for children of Portuguese origin, and to see German children having a go at Portuguese. But that is secondary. The main thing is that this method has a positive effect upon Portuguese-speaking children. It stimulates their self-esteem. They see their home language being spoken by German pupils. Their home language is, finally, 'like theirs,' just as important as 'theirs.' So important that even 'they' speak it ... ${ }^{91}$ (Portas and Soeiro, 2005: 5)

## 6. Conclusions: Portuguese as typical heritage language

Portuguese migrants represent a typical case of transnational migration. Their presence in Germany is marked by fluctuation between both countries (that is to say, there are many Portuguese coming to the country but also a great many leaving it). Some of the migrants who leave have worked here for 30 years or more and wish to enjoy their pensions in Portugal; others have had bad experiences adapting to this country and have decided to go back. Be that as it may, the Portuguese community is considered unstable. However, Schimdt-Fink summarizes: "Portugal is one of the few countries to have taken great care with the integration of its emigrants abroad. Today, it needs to concentrate upon ensuring the integration of immigrants to its own country" ${ }^{92}$ (2000: 2).

In Hamburg, Portuguese is still a typical minority language, although, given its long tradition in this city and the influence of recent media events, it has begun to gain importance.

[^44]
## V. Portuguese-German bilingualism: overview of the survey

The first Portuguese-German primary class which came into existence at the Rudolf Ross School in Hamburg underwent systematic assessment at the instigation of the "Schulbehörde" (School Administration Office) for four years. After that period, the decision was taken to continue the assessment throughout the fifth and sixth grades in. The School Administration Office agreed to allow the conduction of a Ph. D. dissertation on the Portuguese-German class. The research presented here is thus a longitudinal study of the first two years of secondary education of the PortugueseGerman bilingual class, following some of the methodology used during the primary school evaluation.

This chapter will provide an overview of the aims, methodology and data collection instruments used in the study.

## 1. Aims and research questions

Generally speaking, the aim of this study is to identify the role native language plays in the process of learning the instruction language at school. More concretely, it attempts, firstly, to determine how cognitive academic language, specific to the educational context, develops under the condition of bilingualism, and secondly, to assess the role of the mother tongue (in this case Portuguese) in this process. As already mentioned, in bilingual educational models, the first language operates almost as a pre-requisite for a better acquisition of the second language. In order to confirm this hypothesis, the sample of bilingual students learning through the bilingual model was supplemented by another group of bilingual students attending submersion classes (these students learn Portuguese twice a week in the afternoon in classes organized by the Portuguese Consulate, though the language is not officially integrated into the German school system). ${ }^{93}$ A third group, involving monolingual students in Portugal, was also included to enable comparison of the Portuguese language. This was considered to be necessary, since very little research is available on language acquisition by Portuguese monolinguals between the ages of ten and thirteen.

The study thus aims to verify the central hypothesis of the theory of second language acquisition, namely that coordinated literacy in the first and second languages brings positive consequences for the acquisition of the second language. The main focus will be on narrative performance, in particular the intersection between oral and written language skills.

In order to contextualize the study and allow comparisons between the three groups, four main external factors of a social, cognitive and didactic nature were included. Firstly, the family's socioeconomic status was identified in order to char-

[^45]acterize the students individually and acquire an overall view of each of the three groups as a whole. This was mainly based on family income, parental education level, parental occupation, and social status in the community. It was also considered necessary to control the didactic setting of the bilingual students in the duallanguage programme, as this could influence some of the findings, as well as potentially contribute to the optimization of such teaching in the future. Finally, the students' cognitive abilities were tested in order to draw up group and individual profiles.

All data collected were compared with the results of an externally validated reading-comprehension test, used in the PIRLS/IGLU-Study. This served as a measure of school achievement, since research has shown that school grades are not a reliable instrument for such a comparison.

Figure 10 shows the design of the study in schematic form.
Deriving from these aims and from the design, several research questions arise:

- How can cognitive academic language in bilingual schooling contexts be defined and what is the role of the first language in its development?
- How can narration be defined as part of academic language? And in what ways does it operate in bilingual school contexts?
- How does oral and written academic language acquisition develop in a bilingual model? Are there transfers?
- How do students in bilingual models perform in relation to students attending submersion classes?
- Does coordinated literacy lead to higher educational achievement in both languages?
- What didactic factors influence student outcomes in bilingual educational models?

Purposes

> Practice

## 2. Sample

15 bilingual students from the bilingual class learning with the two-way model were isolated to serve as core of the analysis. However, for the in-depth study of the effects of the model on the other groups, 4 German-speaking students and 6 Portuguese students (monolingual at the time of admission onto the programme) were also considered. Therefore, this group comprised 25 students. While this number is considerably larger than the normal samples used in international research on child language acquisition (Berman and Slobin, 1994), it is safer to operate with an initial over-sampling due to the common phenomenon of student fluctuation in bilingual classes (Gogolin, Neumann and Roth, 2003a). In addition, 15 bilingual students learning in submersion classes in Hamburg and another 15 monolingual students in Portugal were used as control groups. The sample thus comprised a total of 55 students. A summary is displayed in Table 7 below.

Table 7 - Overview of the three groups in the sample.

|  | Two-way bilingual <br> $N=25$ | Submersion in Hamburg | Submersion in Portugal |
| :--- | :---: | :---: | :---: |
| Bilingual | 15 | -15 | ---- |
| German | 4 | ------- | ----15 |
| Portuguese | 6 | --- |  |

## 3. Methodology and instruments

The instruments used for the data collection derive from different areas and are complex in their construction. Thus they will each be briefly described in this chapter, with further information provided in the chapters relating to their analysis and results.

### 3.1 Written data

Over the two years of data collection, six written tests were applied to the bilingual students. Three of these were also administered to the two control groups. Except for the case of the monolingual students in Portugal, all the tests were applied in both German and Portuguese.

The first test to be used was the PIRLS/IGLU reading comprehension test (cf. Chapter 10). This test was administered to the students at the end of the fourth grade and thus operated as a bridge between primary school and secondary education. At the very beginning of the fifth grade the test was applied to the new students who had just entered the class. This allowed a general comparison to be made between both school years, as well as between both groups of students in the new class: those with four years of coordinated literacy and those with no primary bilingual education.

At the end of Grade 6, this test was applied again to all three groups in the sample, thus providing both a progressive perspective on the group of the bilingual students in the bilingual model and a comparative view of their performance in relation to the other two groups.

At the end of the fifth grade, the Tulpenbeet-tool (cf. Chapter 9) was applied to the bilingual students. This test is intended to generate a free written narrative text in both languages using a series of pictures as a prompt. This method had already been successfully tested for Italian-German (Hansen, 2001), Spanish-German (Owen-Ortega, 2002), Portuguese-German (Roth, 2003a) and Turkish-German (Reich, 2001b). The categories used for the analysis of the student productions were adapted from those developed for the HAVAS language test (Reich and Roth, 2003) and also expanded in the FöRMiG-project (Klinger, Schwippert and Leiblein, 2008). However, some categories deriving from concrete research questions featuring only in the current study were added to the analysis.

The Tulpenbeet tool was adapted in order to evaluate the intersection between written and oral language in the case of narrative cognitive academic discourse. It was thought that this test might benefit students with reduced linguistic proficiency and those who normally failed at writing, by motivating them to demonstrate their knowledge. Teacher feedback and classroom observations had suggested that this could be one method of overcoming the common gap between competence and performance in diagnostic tests. Knapp, for example, concluded that "the concealed difficulty with the language [of the school] has to do with writing"94 (1997: 7). This author refers to Wygotski's description of the particularities of written language (i.e. its double abstraction, given that it is removed from both the sound system of speech and from the interlocutor, emphasizing its monological character). He goes on to summarize the difficulties faced by students with poor proficiency in German when dealing with the act of writing:

For children with poor knowledge of German, some problems result from the double abstraction of sound and interlocutor. The characters as bearers of linguistic information are either understood or not. Accompanying information about the clarification of the linguistic message is not transmitted. In addition, there is no possibility of supplementing language with gesture, facial expression or prosodic features. ${ }^{95}$ (Idem: 15)

For these reasons, this study also includes an oral narration and dictations, in which the students were required to dictate the story in both languages while native

[^46]speakers wrote it down. These data were compared to the written samples for the bilingual students attending the bilingual model (the third group did not do this).

At the end of the sixth grade, the Tulpenbeet tool, in the form of textual production, was administered to the two groups so that the results could be compared.

### 3.2 Oral data

At the end of the sixth grade, the same visual prompt used for the textual productions and dictations served as the basis for the oral narrations of all three groups in the sample. The children had the series of pictures with the question mark on a sheet of paper and were asked to narrate the story, while an mp3 recorder recorded it. They were told that they would be able to listen to a fragment of their narrations at the end of the recording process. After the first narrative sequence, they were given the opportunity to make small additions or adjustments to their narrations and were finally given the opportunity to listen to the last twenty seconds of the recording. The bilinguals performed this task in both languages, while the monolinguals in Portugal only narrated in Portuguese.

The data were analysed along the lines of the pattern established for the other productions in order to facilitate the comparison of results and the characterization of oral narrative language.

### 3.3 Social control factors

In order to ensure the comparability of the groups and control the validity of the data, the following contextual variables were identified for the families of the students involved in the study:

- socioeconomic status;
- educational attainment level.

These data were collected by means of a questionnaire administered to the parents of all three groups (cf. Chapter 7). However, in the case of the Portuguese submersion students, some of the information related to multilingualism and linguistic practices was removed as both parents and students were monolinguals. The items included were the same as those used for the official "Schulbehörde" evaluation of the bilingual primary schools in Hamburg (Gogolin, Neumann, Roth, 2003a).

### 3.4 Educational setting

In order to control the form of didactic instruction received by the students attending the two-way bilingual model, formal observations were carried out, not only of language classes, but also of the bilingual technical subject called "Gesellschaft /

Sociedade [Society]". ${ }^{96}$ These classroom observations were conducted approximately every two months, making a total of eight per school year and, consequently, sixteen for the study as a whole. Based on these observations and also on those conducted during primary school by other researchers (Roth, Neumann and Gogolin, 2007), an impression will be given of the educational methodology used in this dual language class.

### 3.5 Cognitive skills

In addition to these factors, another context variable was added to the study in order to ensure the comparability of the three samples, thus eliminating possible external factors influencing the results. By applying a standardized intelligence test, it was possible to compare the general cognitive ability level of the three groups, so that eventual disparities in the results could not be attributed to individual differences at this level. It was also concluded that, as immigrant children acquired conversational fluency relatively quickly, teachers tended to exclude linguistic difficulties as the cause of poorer school achievement amongst these students. Knapp claims:

The teacher erroneously judges the linguistic competence to be high and therefore attributes poor achievement at school to low intelligence, an unwillingness to learn or even to a learning impediment. ${ }^{97}$ (1997: 6)

For these reasons, the application of an intelligence test was thought to be necessary. The test applied was the KFT (Kognitiver Fähigkeitstest - KFT) for sixth graders. This test is one of the most commonly used in educational contexts at both the individual and group level, and includes the following areas: a) language comprehension; b) language cognition; c) arithmetical reasoning; d) calculation; e) visual cognition, and f) constructive abilities (Heller and Perleth, 2000). As the test includes verbal and non-verbal sub-tests, and the purpose of its application in this study was, above all, to determine group comparability, not all parts of the test were used. That is to say, because the students in Portugal were monolingual (and also because of some bilinguals), only the non-verbal sub-tests were applied. For the monolingual group, the instructions were translated into Portuguese and the process of data collection took place in the same way as with both other groups.

[^47]The data were analysed using the templates and procedures supplied by the institution that designed the test.

## 4. Process of data collection

The data were collected over a period of two years in Hamburg at the Rudolf Ross School (bilingual class) and at the Katholische Schule Dohrnweg (bilingual students attending submersion classes). The instructions were given in both German and Portuguese, except for the tests with fixed introductions, such as the IGLUPIRLS and KFT-tests, in which cases the instructions were read in German. The data from Portugal were collected in cooperation with the Department of German Studies of the University of Minho, Portugal, with whom a cooperation agreement had been established for this purpose.

Table 8 shows all of the instruments used and the group(s) to which they were administered, the school year and time of application for each of the samples.

Table 8 - Overview of the instruments applied in the fifth and sixth grades.

|  | Bilingual Students <br> (bilingual model) | Bilingual students (submersion) | Monolingual Students (Portugal) |
| :---: | :---: | :---: | :---: |
| $5^{\text {th }}$ Grade |  |  |  |
| Written samples | IGLU-PIRLS (for the new students) Tulpenbeet-Text |  |  |
| Classroom observations | 8 per school year |  |  |
| Parental interviews | 13 questionnaires (for the parents of the new students) |  |  |
| $6^{\text {th }}$ Grade |  |  |  |
| Written samples | Dictation Tulpenbeet IGLU-PIRLS | Tulpenbeet-Text IGLU-PIRLS | Tulpenbeet-Text IGLU-PIRLS |
| Oral samples | Tulpenbeet | Tulpenbeet | Tulpenbeet |
| Classroom observations | 8 per school year |  |  |
| Parental interviews | 2 questionnaires (for the parents of the new students) | 15 questionnaires | 15 questionnaires |
| Intelligence tests | KFT (non-verbal intelligence tests) | KFT (non-verbal intelligence tests) | KFT (non-verbal intelligence tests) |

## 5. Quantitative data analyses

This section briefly summarizes the statistical methods used throughout the study. For further reading see Field (2005). While the current survey includes aspects of a qualitative nature, some quantitative analyses were conducted. The most important aspects as regards data collecting, processing and analysis are given below.

The most frequent analysis used in the study was the determination of significant correlations between two rankings (bivariate correlation). For this purpose a non-parametric test was chosen as the sample was relatively small and unevenly distributed. In addition, such non-parametric methods make fewer assumptions about the type of data on which they can be used, their applicability being thus much wider than the corresponding parametric methods. In particular, they may be applied in situations where less is known about the application in question. Although Spearman's correlation coefficient was always used for comparison and control, all the correlations presented in the study were determined through Kendall's tau b correlation coefficient. According to Field:

Kendall's tau (...) should be used rather than Spearman's coefficient when you have a small data set with a large number of tied ranks. This means that if you rank all scores and many scores have the same rank, Kendall's tau should be used. (2005: 131)

To investigate some of the theoretical constructs that might be represented by a set of items, factor analyses were used as means of determining the internal reliability of the different clusters of variables. To make sure that the small loadings of the factors are considered, the method of orthogonal factor rotation ${ }^{98}$ was applied, thus maximizing or minimizing the loadings of the factors (the method chosen was Varimax). The factors found were then validated through a reliability analysis using Cronbach's $\alpha$.

For the analyses of variance with repeated measures, mixed repeated-measures ANOVA were chosen to examine significant differences between the factors included in the present study. Mixed ANOVAs were thought to be appropriate due to the mixed design where the purpose was to explore significant differences between several independent variables (maximum three), as well as the way they interact with each other and the effects these interactions have on dependent variables. Repeated measures were applied as the same subjects were used for each treatment. As to the a priori predictions about the data when exploring it for any differences between the means, post hoc tests were used for pairwise comparisons, in order to compare different combinations of the treatment group. The Bonferroni correction (Field, 2005) was used to correct the level of significance for each test so that it remained at .05 across all comparisons.

The initial techniques used in the variance analysis were developed by the statistician Fisher; indeed, it is sometimes known as Fisher's ANOVA or Fisher's analysis of variance, due to the use of Fisher's F-distribution as part of the test of statistical significance.

To ascertain the causal effect of one variable upon another and thus be able to identify patterns of common features in the data, linear regression analysis was used. This is a statistical tool for the examination of relationships between variables

98 The test chosen was Varimax.
(Field, 2005) and its use aims at estimating the quantitative effect of the causal variables upon the variable that they influence.

## 6. Methodological challenges

When considering the methodology used in this study, two main problems arise. These will be briefly discussed below.

The study uses as a main instrument a series of pictures as means of eliciting narrations. According to some authors, free and spontaneous textual productions are, at an individual diagnostic level, more appropriate. However, they cause two problems:
i. Tests which intend to compare students' performances and identify possible problematic cases require standardized criteria and data collection conditions, otherwise the results lose their comparability factor. Boueke et al. claim: "Because usage is always also context-dependent, we are justified in demanding that it be analysed there - and only there - where it really occurs, i.e. within 'natural' situations. Such, within the scope of interactional and socio-linguistic investigations also favoured access, is less suited for the investigation of the competence 'underlying' to the usage, however, than one experimental setting, like that (...) we have chosen: The 'naturalness' of the narrative situation and the comparability besides of the collected narrative texts exclude itself to a great extent" ${ }^{\text {'99 }}$ (1995: 120);
ii. Linguistic assessment is carried out in order to allow language support for students who, for different reasons, do not perform at the expected grade-level. Thus, the tests are to be used in an educational context and for educational purposes. Within a classroom context, students are assessed through their accomplishment of the tasks demanded of them. The Tulpenbeet represents precisely one of these situations, as it takes place in the educational habitus on an everyday basis; students are not usually asked to talk or write "freely", but rather must fulfil a specific aim.

However, according to some authors the achievement gap between performance and competence is seen to be a general problem of standardized language assessment tools (Bredel, 2000; Knapp, 2001; Dehn, 2006). In "Ohne Worte" Bredel disapproves of Boueke et al.'s task description; the children are asked to tell a story

[^48]based on pictures; however what happens cognitively is the contrary of what happens when someone is asked to tell something freely. Bredel claims that a picturebased story immediately displays the whole sequence of events. Yet, the children are supposed to focus on each picture at a time and forget that they have already perceived the whole. Not only this, the fact that they must also keep looking at the pictures in order to be sure that they have not forgotten anything is not something that occurs in any other narrative situations. The author argues that the consequence of this process is that the students tend to describe the pictures separately, rather than narrating the actions that take place in them. In her opinion, picture-based elicitation does not allow either the acquisition and development of narrative skills or the application of already existing narrative abilities.

Knapp (2001) also criticizes Boueke et al.'s methodological choice. In "Erzähltheorie und Erzählerwerb" he states that, through the use of pictures, the narrations produced by the children in their analysis are high-point narrations and not narrations in general. Thus their results must be seen in the light of the method used for data collection and not as a generalizing model. For him, picture-based narrations are rather re-narrations and cannot serve as a basis for conclusions about a child's narrative skills. Like Bredel, he too considers that the pictures increase description and decrease narration.

As already alluded to above, the purpose of this research is not to examine how bilingual narrative skills develop in general but to analyse how they develop in educational settings rather than in spontaneous situations. Therefore it becomes necessary for data collection to take place in a manner comparable to an educational experience. With picture-based elicitation, a concrete task was asked of the students and their approaches were also assessed through the category of task accomplishment, thus giving credibility not only to how narration takes place but also to how the students dealt with the task itself. Furthermore, as this study has a comparative character, involving three different groups, a certain degree of objective comparability must be achieved. This can only be done when all students have performed the same task under the same conditions. Therefore, despite Bredel and Knapp's criticisms of the practice of using pictures as basis for narrations, this study nevertheless makes use of this method for data collection.

The second methodological question arising from the current process of data collection concerns the repetitive use of the same pictures to elicit narrations. All three groups produced both texts and oral productions, and the two-way bilingual students also performed dictations. Two measures were taken in order to reduce this test effect. Firstly, considering the fact that the whole sample used the same pictures twice, an extra aspect was added to the analysis (for further details of this see Chapter 9). Secondly, regarding the two-way bilingual students, the texts were collected earlier than in the case of the other two groups in the sample. This gave them an advantage when the data was compared and also meant that there was
enough time between collections ${ }^{100}$ to enable familiarity with the instrument to be reduced.

## 7. Conclusions: overview of the current study

In order to establish a bridge between primary and secondary education, this research starts by presenting a summary of the first four years of dual-language education at the Rudolf Ross School in Hamburg. It presents the model used by the official "Schulbehörde" evaluation of the classes, as well as an overview of the results related to the students' general linguistic development, specific items concerning cognitive academic language and some didactic considerations.

A detailed description of the sample follows. It is focused on determining linguistic practices within the families, socioeconomic and educational data, as well as general attitudes towards bilingualism. An analysis of the cognitive skills of all of the students in the sample will also be given.

The empirical section starts with a presentation of all data deriving from the application of the Tulpenbeet-tool, focusing primarily on linguistic aspects. In the second phase, these are related to several external factors used to validate and control the results.

Finally, the implications of the results found will be discussed and related to current discourse on academic language and school achievement of migrant students. The features of narrative academic language will be discussed for both German and Portuguese. The relevance of the results for educational, sociological and didactic perspectives will then be investigated.

[^49]
## VI. The bilingual model in Hamburg: summary of the first four years

In 1999, the University of Hamburg was contacted by the School Administration Office with a view to conducting a scientific evaluation of bilingual primary classes, which were to be implemented in several schools in Hamburg in 2000/01. The model was initiated with two classes: an Italian-German class and a Portu-guese-German class. In 2001/02, two Spanish-German classes joined the original project and in 2003/04 two Turkish-German classes began to be evaluated.

In all schools, the classes were organized in accordance with a two-way bilingual model. The subjects taught bilingually were languages, natural sciences, social studies ("Sachunterricht") and, in some cases, music, as well as a tutorial class. ${ }^{101}$ In this chapter, the process of scientific evaluation applied in these classes will be presented, as well as the main results achieved in the first four years of the bilingual primary schools in Hamburg.

## 1. The model of scientific evaluation

One of the main purposes of the evaluation of these classes was to determine the development of educational "languages," i.e. both oral and written discourse, under bilingual circumstances. Two types of speech acts were thus chosen as structuring features of the analysis: narrating and explaining. The narrative category is a more specific feature of language classes, whereas explaining is predominantly accomplished in technical classes, such as geography, history or social studies. Therefore, the language classes and the "Sachunterricht," which includes features of the three subjects mentioned above, were chosen as the main focus of the scientific evaluation. The key purpose was to identify and analyse the links between written and oral discourse, from a narrative and explanatory perspective, in this particular bilingual educational context.

The evaluation also included a control perspective, so that the data obtained could be correlated to factors which were seen to influence the results. Thus, information was sought about language practices within the families in order to establish the linguistic background of each student. The following data were controlled:

- mother tongue, and other dominant languages used by both parents and students;
- other languages spoken by the parents, and those learned as foreign languages;
- number and relation of spoken languages in the family;
- other languages spoken in the family.

[^50]The linguistic presuppositions of the students upon entering the school were thus documented and four linguistic groups of students were established, by gathering information from all collected data:

- Group A - monolingual German students;
- Group B - monolingual Portuguese students, (at the time of entrance into the educational institution);
- Group C - bilingual students with German and another language not included in the model;
- Group D - bilingual students with the linguistic combinations included in the model (German and Italian, Portuguese, Spanish or Turkish).

Moreover, the socioeconomic status of the families was also assessed, including information about the educational attainment and professional occupations of both parents. The purpose of this was to examine whether the bilingual model could in any way help to minimize the differences in school performances achieved by students of different social classes and educational backgrounds. Teaching conditions were also controlled through classroom observations.

## 2. Data collection in the bilingual schools

The data collection in the bilingual schools was divided into oral and written productions. In each school year, the students performed one written test, focusing on different aspects (spelling, reading comprehension, narrative skills, literacy development, etc.) and one oral production at the end of the school year. The data was collected by mother tongue speakers.

The oral productions were evaluated using a procedure developed by Reich (2001) following Clahsen's profile analysis, which was originally developed for German and later adapted for Italian, Portuguese, Spanish and Turkish. Students were asked to respond to visual prompts that had been specifically chosen to elicit answers in the form of one of the types of speech acts mentioned above. Thus, some of the prompts were designed to encourage the students to narrate a story, while others aimed to produce explanatory discourse, mostly dealing with themes arising from "Sachunterricht," such as "Family / Social relations," "Health / Medicine," "Environment / Natural sciences" and "Technique / Traffic."

The oral data were transcribed by speakers of the different mother tongues and translated into German when necessary. Then they were qualitatively analysed with the $\mathrm{MAX}_{\mathrm{QDA}} 2$ ("qualitative data analysis") programme in an analytical scheme comprising three main categories: 1) concepts, which investigates the cognitive capacities of the students when dealing with the visual prompt; 2) language, centred on nouns, verbs and sentence connectors, but designed particularly to discern between cognitive academic language and colloquial means of expression; 3) types of speech acts, to distinguish predominantly between narrative and explanatory pro-
ductions. A procedure originally created by Dehn, which was later adopted and further developed by Roth (2002), was used to evaluate literacy. It was adapted to suit the specifics of the different grapheme systems. As for the oral samples, the written prompts were intended to stimulate the students to produce narrative or explanatory texts. External processes of performance control (following PIRLS/IGLU, Bos et al., 2003) were also applied at Grade 4. Some of the prompts were used in both oral and written form. This was the case of the picture prompts "Katze und Vogel [Cat and Bird]," Figure 11, also applied in Hamburg as a basis for the linguistic diagnosis of pre-school children (cf. HAVAS-tool, Reich and Roth, 2003). This instrument enabled the written and oral data to be compared, thus permitting an analysis of the so-called links between oracy and writing.


Figure 11 - "Katze und Vogel" (Reich and Roth, 2003).
The data concerning the families' socioeconomic status were collected through a questionnaire, administered to the parents, and included questions about the following five aspects:

- motivation behind participation in the bilingual model;
- experiences and expectations;
- information about the parents' own school career;
- linguistic practices within the families;
- socioeconomic status.

This instrument was developed after a series of semi-structured interviews, conducted with some of the parents at the beginning of the project. At the end of the fourth grade, the questionnaires were expanded and applied again in order to iden-
tify possible changes during the four years and to analyse the effect of the bilingual education programme.

In order to take account of the teaching conditions used at the different schools, classroom observations were conducted approximately eight times per school year. In some cases, isolated classes were observed; in others, a whole teaching unit was monitored. The activities occurring in these classes were registered in the form of protocols, containing four main categories: time, language, event and comment.

## 3. Main findings related to language development

This section will briefly summarize the results presented in the reports by Gogolin, Neumann and Roth (2002; 2003) and Roth, Neumann and Gogolin (2007).

One of the main findings when analysing the bilingual classes concerns their linguistic diversity, which goes beyond the five languages formally included in the project. Eight additional family languages were found. In several cases, more than two languages were used in everyday communication. This heterogeneity reflects the multilingual character of the student population in Hamburg (Bühler-Otten and Fürstenau, 2004).

All students displayed positive linguistic development in both languages, depending on their linguistic background upon entering the school. Thus, the monolingual German students managed to acquire the partner languages ${ }^{102}$ in an appropriate way for students with no previous skills in these languages, while bilingual students were also able to develop their knowledge, particularly in the written form.

As expected, the dominance of the German language increased enormously throughout primary school, rapidly becoming the language of communication, even among monolingual students in the partner languages. The acquisition of German in the group of second language learners was particularly successful with regard to reading comprehension; after two years the results for this group were not far from those of the other bilingual and monolingual German children. This confirms research findings which suggest that second language performance is more effective through the support of the first language (Reich and Roth, 2002; Thomas and Collier, 2002). However, at the end of four years of schooling, the performance of students with the lowest socioeconomic backgrounds was still significantly different to that of the other linguistic groups in German and mathematics. This confirms the theories of second language acquisition which predict a minimum of six years, even eight, for the completion of second language acquisition.

On the other hand, German monolingual students take longer to acquire partner languages, as might be expected. For example, their reading comprehension in Italian, Spanish and Portuguese in Grade 3 was still highly dependent on the linguistic prerequisites at the beginning of primary school. Thus, the success of monolingual

[^51]German children regarding the partner language seemed to be highly dependent on factors other than linguistic preconditions, such as the gender distribution in class.

In terms of vocabulary, there was an increase in the quantity of verbs being used per utterance and also in the number of verb tenses. However, monolingual children use fewer verbal inflections than the others. As far as nouns were concerned, there seemed to be a common basis among all students, although there was a great deal of variation in performance.

In terms of syntactical performance, there were differences between students who produced isolated words or fragments and those who used complex sentences. A tendency towards more hypotaxical sentence constructions was observed throughout the four years.

As regards writing in particular, all students were successful with literacy in both languages and were able to freely produce texts in both languages. However, monolingual German students tended to use the past tense in German and the present in the partner languages, while monolingual students in these languages and bilingual students use present and past in both languages.

Language transfer and code switching occurred predominantly in the partner languages, except in the case of students that entered the school after the project had started without any knowledge of the German language. Although those students learned German very rapidly, they started off by including elements from their partner language in their written work.

After two years of parallel literacy, the students were able to structure their texts using elements of literary organization, such as titles and dialogues, attribute names to their characters, and begin and end their texts with a literary formula (e.g. "once upon a time," "lived happily ever after," etc.). In none of the languages did there seem to be any relation between spelling and textuality; that is to say, the most accurate writers in terms of spelling were not necessarily the finest writers in terms of text complexity, length and structuring.

In spite of these differences, children who were bilingual at the beginning of primary school tended to develop a balanced bilingualism in reading comprehension; children whose dominant language was German also showed progress toward bilingualism in their reading skills. Nevertheless, it was necessary for there to be a sufficient number of bilingual children for the achievement of high bilingual proficiency across the class; if there were too few the acquisition of the partner language was far less effective.

A positive condition for successful language acquisition was revealed to be linguistic self-confidence, which was achieved through the acknowledgement of the students' first language. This also led to improved communication between the parents involved in the project, the schools where the bilingual classes took place and the University of Hamburg. Some of the parents admitted that they had been anxious about their children's education, but became less so when their child was going to school, as they knew that their language would be spoken and that they would be understood.

## 4. Main findings related to cognitive academic language

Using nine picture-prompts on subjects such as health, environment, family/society, technology, natural sciences and traffic, the researchers asked the students to respond orally to them in both languages, asking always the same questions. The material collected comprises approximately 1500 pages of transcribed text; of these, two of the pictures were selected for further detailed analysis, mainly concerning the relation between colloquial language forms and linguistic structures representative of an academic style. In addition to verbal morphology and the sentence connectors, the following features were analysed for the German language:

- passive voice constructions;
- impersonal expressions;
- conjunctive;
- constructions with the auxiliary verb "lassen";
- nominalization;
- compound nouns;
- attributes.

In addition, colloquial expressions and jargon were coded separately. In order to answer the research question regarding the existence of empirically attestable linguistic phenomena of academic discourse in oral speech, a factor analysis was conducted and three components were found:
i. attributes, jargon expressions like "oder so" [or so, like that] and colloquial forms make up the first component, as well as a tendency towards the use of subordinate clauses. This can be described as a school register, to a certain extent, with a low level of abstractive performance; nevertheless it tends to colloquial formulations. It can be called colloquial style;
ii. the second component includes nominal elements - nominalizations and compound nouns - and also verbs, as well as impersonal expressions and sentence connectors. This component can be entitled academic style;
iii. as independent factors, the third component includes only the verbal conjunctive and the passive voice constructions. It was termed elaborated style.

With these components, an outline of oral academic language beyond semantic aspects was established and should be verified and expanded in other studies. However, for the above mentioned groups, the oral academic school register in German can be characterized with these three components; a reliability analysis has shown high figures for all three styles. ${ }^{103}$ The results from the bilingual classes after four years of primary school revealed an advantage of the monolingual German students in relation to those who started acquiring German as a second language at the beginning of the first grade. Such a result concurs with Cummins' assertion that in

[^52]second language acquisition contexts, immigrant children typically manifest very different time periods required to catch up with their peers in everyday face-to-face aspects of proficiency, as well as in academic aspects (Cummins, 1979). Thus, students need time and support to become proficient in academic areas; this usually takes from five to seven years. Research (Thomas \& Collier, 1995) has shown that if a child has no prior schooling or has no support in native language development, it may take seven to ten years for second language learners to catch up with their peers. For students in bilingual classes, this process is, after four years of coordinated bilingual education, complex.

Consequently, the central thesis that school achievement is not simply dependent on linguistic level but on specific academic linguistic register is confirmed by these results. Such a supposition remained a hypothesis until now, not having been empirically proved. With these results, the importance of school academic language for the development of students' performance is confirmed, which makes it the responsibility of the school to develop such specific linguistic components.

When considering the amount of use of the different styles, and in accordance with what was mentioned above, a dominance of the academic style by the monolingual German students was registered. The bilingual students have a balanced use of both academic and colloquial styles, whereas the monolingual Portuguese students still apply a more colloquial language. However, the only significant difference in the use of the academic style is between the monolingual German students and the monolingual Portuguese ( $\mathrm{p}<0.05$ ).

Therefore, it could be assumed that the variety of linguistic style depends on its use within families. This hypothesis was verified by the data related to the family's socioeconomic status and parental educational attainment level; no relationship was found, either with the educational attainment level of the parents or with the socioeconomic status of the families. Consequently, supporting the theory mentioned above, it can be supposed that the differences in bilingualism levels derive from the incomplete nature of second language acquisition of the Portuguese monolingual students after four years of primary bilingual education. However, when taking this into consideration, the results are encouraging:

- The students already bilingual in Portuguese and German when entering the model performed as well as the monolingual Germans, although they had a significantly lower socioeconomic status.
- The students that were already bilingual with other linguistic combinations (for instance, German-Polish, or Hungarian) also displayed the same results as the monolingual German. They are thus not disadvantaged by the model, which actually leads to trilinguilism in these cases; their linguistic competence presents no significant differences in relation to that of the monolingual Germans and the other bilinguals.
- The students entering the model without German or with poor proficiency in that language did not attain the level of the other groups. Nevertheless their oral
productions were sufficiently developed to ensure the expected educational progression - none of them had to repeat the school year.


## 5. Main findings related to classroom settings

Although the bilingual schools adopted the model being used in Wolfsburg, no specific methodology was established. The teachers thus developed their own conceptions and materials as they thought best suited their classes. As a consequence, two main tendencies regarding the methodological organization in the classroom were observed: some teachers would divide up the students during language classes, while others taught the whole group together, in spite of its heterogeneity. In most cases, the principle chosen for the bilingual "Sachunterricht" was "one person one language," which allowed an integrated linguistic- and technical learning process. According to Roth, Neumann and Gogolin:

Integrated linguistic and technical learning took place, which was task-oriented and in which authentic language practice was maintained. The teachers intended to promote receptive and productive skills, oral and written, in both languages. ${ }^{104}$ (2007:37)

A number of conclusions may be drawn from the classroom observations. Firstly, it would appear that, for successful bilingual acquisition, the students need to be organized in the classroom, as well as during the group tasks, according to their linguistic conditions. Thus, it could be observed that the students worked more successfully with someone from another linguistic background (e.g. a monolingual German with a monolingual Portuguese student).

Furthermore, the didactic principle exerting the greatest influence on the process of bilingual acquisition was teamteaching, where both teachers are present in the classroom and work in a team, alternating in the use of both languages of instruction. The language switch normally accompanies a change in classroom task, so that it can be spoken from a functional linguistic alteration, so that both tongues are used in a balanced and equal way. The absence of "flip-flopping" (Roth, 2008), an uncoordinated and illogic linguistic use, was thus one of the main features of successful bilingual acquisition.

At the beginning of the model, the principle of "one person - one language" was mainly respected by the German teachers, while the colleagues responsible for partner languages spoke to the students in both languages, albeit with reduced use of German. However, as the project developed, the German teachers, motivated by the scientific evaluation, began to make use of the partner languages in class.

[^53]
#### Abstract

Encouraged by the recommendation of the scientific evaluation to use the partner languages also in teacher interaction and to give observations about linguistic learning strategies, examples of learner linguistic phenomena and linguistic changes in the children, some teacher teams tested with accordingly organized lessons ('station learning' 'workshop') straight, to act bilingually. ${ }^{105}$ (Roth, Neumann and Gogolin, 2007: 33)


Consequently, the principle of linguistic separation was maintained not only depending on the person, but also depending on the content being taught or the time for instruction. Thus the role of the teacher in linguistic change revealed to be an important feature of bilingual acquisition, i.e. the teacher worked as a role model for the use and change of the languages.

In addition, with respect to the alternation of the languages, the most significant teaching methodology was revealed to be the absence of direct translation. It was observed that the students demonstrated higher levels of concentration in the class and engaged more readily with the activities when, upon changing the languages, there was no translation. In some cases, the students were asked to present a summary of what had been said in the other language but the contents were not directly translated, as this would diminish the cognitive effort to understand the weaker language.

For the acquisition of biliteracy, it was also confirmed that early literacy in both languages allowed a relatively sound separation of both linguistic systems, as long as this was carried out in a parallel and coordinated manner.

## 6. Conclusions: the future of the bilingual primary schools in Hamburg

This project thus represents a continuation of the evaluation of the PortugueseGerman class begun with the "Schulbehörde" assessment. It is based not only on the model of scientific evaluation used as in the results collected throughout the four years of bilingual primary school education. However, it also includes a stronger comparative feature towards other groups, in order to allow a comparison of the results.

The bilingual Portuguese-German project will continue at the Rudolf Ross School until the tenth grade, when students who wish to continue and attain their bilingual high school certificate will have the opportunity to move up to a "Gymnasium" where the project will be continued until the thirteenth grade, leading to an acknowledged bilingual "Abitur."

[^54]
## VII. The sample

Before the presentation and discussion of the results, important information will be presented regarding the families involved in the sample, as this will help to determine the socioeconomic and educational conditions in which the students live. Furthermore, additional information concerning language practices and bilingualism will be provided. These result from a questionnaire administered to all the families included in the study.

Thus, this chapter shows the results of the questionnaires answered by the parents of the students of the Portuguese-German class in the Rudolf Ross School, the parents of the bilingual students in submersion classes and the parents of the monolingual students in Portugal. Furthermore, it reports the results of a cognitive ability test, applied with the purpose of ensuring the comparability of the three groups of the sample.

## 1. Aims of data collection

The questionnaires were designed and administered in such a way as to examine the linguistic, cultural and social background of the families forming the three groups of the sample. The initial aim of both questionnaires and intelligence tests was to determine the comparability of these three groups for the purpose of result validation.

## 2. The parental questionnaire

The questionnaires were not given to the parents to fill out but, rather, were conducted orally and individually in the form of partially standardized interviews, performed in the language chosen by the parents themselves (either German or Portuguese). They included the following thematic units:

- motivation behind their child's participation in the bilingual model;
- experiences and expectations;
- information about their own school career;
- language practices within the families;
- socioeconomic status.

Data about the linguistic situation within the families, as well as in other socialization institutions, was also collected in order to allow the results achieved by the students to be analysed and assessed in the contextual of their individual language settings.

The interview was based upon the structure designed by Reich (2001), which was further expanded for the purpose of this study. In particular, the items dealing
with the individual linguistic biographies were adapted and expanded. Each interview took approximately thirty minutes.

## 3. Description of the sample and data collection

The sample comprised a total of 55 families: 25 families of the students taking part in the bilingual project; 15 families of the Portuguese-German bilingual students living in the Hamburg region, and 15 families of the monolingual Portuguese students from the Portuguese region of Braga. The interviews were conducted with only one of the parents ${ }^{106}$ but data related to the partner were also collected, as they are integrated in the questionnaire.

With the first group of students, the first phase of data collection took place in the year 2000/01, when the pilot phase of the scientific evaluation of bilingual classes in Hamburg started; the second data collection was carried out in 2004/05. During this latter period, the questionnaires were only administered to the parents of the eleven students who had joined the bilingual class at the beginning of the fifth grade. In the year 2005/06, two new students enrolled in the class, which added two more questionnaires to the collection. Consequently, the total number of questionnaires across this group is:

- 13 questionnaires from 2000/01 (students who took part in the bilingual class from the outset);
- 10 questionnaires from 2004/05 (students who joined the class in the fifth grade);
- 2 questionnaires from 2005/06 (students enrolling in the class at Grade 6).

The questionnaires were applied to the other two groups in the sample between May and July 2006. The data relating to the parents of the bilingual students in submersion classes was obtained in individual interviews at the Katholische Schule Dornweg in Hamburg, during a parents' meeting regarding the extra-curricular Portuguese classes. The monolingual students in Portugal were questioned by a research assistant on the project "Bilingualism and Education in a Remigration Context ${ }^{" 107}$ at the University of Minho in Braga.

From these two groups, there resulted:

- 15 questionnaires applied to parents of bilingual Portuguese-German students;
- 15 questionnaires applied to parents of monolingual Portuguese students.

Thus, this chapter will present data from 55 questionnaires, referring to a total of 110 people.

[^55]
## 4. Data processing

The analysis of the questionnaires was undertaken in two stages. Firstly, the quantitative data were processed statistically using the software programme SPSS, in a regular frequency analysis. The open questions were examined as to their content and subsequently organized into qualitative categories, which were then also submitted for quantitative frequency analysis with SPSS. The determination of the Standard International Occupational Prestige Scale (SIOPS) and International Socio-economic Index of Occupational Status (ISEI) indexes was done according to the procedure described by Ganzeboom and Treiman (1996).

## 5. Results of the bilingual class at the Rudolf Ross School

### 5.1 Language practices within the families

In order to examine the linguistic situation of the students involved in the bilingual model, the following information was collected:

- mother tongue and other dominant languages of both parents and children;
- other languages spoken by the parents and those learned at school as foreign languages;
- number and relationship of the spoken languages in the family. For this, the language behaviour of both parents was assessed as well as that of siblings and other family members. As regards the child's own language behaviour, answers given in response to questions asked by parents were distinguished from spontaneous speaking. Code-switching during oral communication was also examined;
- whether there were other languages spoken in the family and, if so, for which purposes.

As expected, German and Portuguese were the dominant languages spoken by these parents, not only as mother tongue but also as languages most used for communication. As regards the mother tongues of both parents, approximately $35 \%$ had German as a mother tongue (or as one of their mother tongues), ${ }^{108}$ whereas $55 \%$ had Portuguese. Four parents had two mother tongues with combinations other than German and Portuguese (i.e. German-Hungarian, German-Polish-Romany, Ger-man-Creole and German-Russian). Out of 26 children, only 4 were classified as exclusively monolingual German; ${ }^{109}$ all others were bi- or multilingual. The data collected about the languages learned at school also reflected an expected result: English and French were the foreign languages most frequently acquired through

[^56]the school system. The number of parents who had never learned a foreign language at school (12) was quite high.

Most of the parents indicated that their language corresponds to the standard variant of the language, especially regarding German. However, as far as the Portuguese language is concerned, there was some diversity: 4 parents spoke the variant from the North of Portugal; 3 spoke Brazilian Portuguese, 1 spoke Cape-Verdean Creole, 1 Angolan Creole and 1 the dialect of Madeira.

Regarding the languages spoken directly with the children, approximately half of the parents (27) communicated in either one of the two languages, without codeswitching. In approximately one third of these cases, the language of communication was Portuguese. The other 25 parents communicated in both Portuguese and German, although more in the former than in the latter. In these families the languages were often interchanged.

The children made more use of German than their parents. According to the information from both parents, in 23 cases they communicated always or mostly in German, but in Portuguese in only 19. One mother used Romany and Polish in daily communication.

According to both parents and children, only a very few families used both languages in a balanced way; in most situations, one language was dominant, either stemming from one of the parents or from the child itself. Table 9 summarizes these results.

Table 9 - Languages spoken by parents and children

| Relationship between the languages spoken |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Interviewee <br> with child | Inter- <br> viewee's <br> partner <br> with child | Child with <br> interviewee | Child with <br> inter- <br> viewee's <br> partner | Child ac- <br> tively with <br> interviewee | Child actively <br> with inter- <br> viewee's <br> partner |
|  | $N=25$ | $N=25$ | $N=25$ | $N=25$ | $N=25$ | $N=25$ |
| Always German | 4 | 4 | 7 | 5 | 6 | 7 |
| More German than Portg. | 3 | 2 | 5 | 5 | 4 | 5 |
| As much German as Portg. | 1 | 1 | 2 | 1 | 2 | 2 |
| More Portg. than Geman | 6 | 7 | 4 | 6 | 6 | 5 |
| Always Portg. | 10 | 8 | 5 | 6 | 7 | 6 |
| Others | 1 | 3 | 2 | 2 | 0 | 0 |

When actively speaking, the children, in general, used the language in which the parents usually addressed them, although the tendency was towards an increase of German. This is confirmed when analysing the languages spoken among siblings. Here none of the children communicated only in Portuguese and only one used more Portuguese than German. ${ }^{110}$ All the others spoke only or mostly German. As expected, they often code-switched.

[^57]
### 5.2 Linguistic situation in other socialization institutions

In addition to language habits within families, the interviews contained information about other spaces or occasions where languages play an important role in contributing towards a child's socialization. Examples include babysitting, schools, playgrounds and other similar institutions. There were also questions referring to the linguistic situation within the families' neighbourhood, as well as audiovisual habits.

To collect data related to the linguistic situation in socialization environments, such as kindergarten, pre-school, day nursery or playground, interviewees were asked about the languages spoken in these places, if there was any support for bilingualism, and, if so, what form it took. There were also questions about linguistic diversity in the local neighbourhood and about the children's audiovisual habits (i.e. the amount of television watched daily and the language of the programmes).

In relation to bilingualism in kindergarten or pre-school and in the playground, it was concluded that German plays a dominant role and, in most cases, there was no support for bilingualism. However, two children had a Turkish nursery school teacher, one child went to a Portuguese babysitter and another had English at the kindergarten. Regarding the linguistic situation in the neighbourhood of the families, two thirds of those interviewed claimed that many of the families living in their surroundings spoke a language other than German. Those languages were predominantly Turkish, Portuguese, and Spanish, although there were also others such as Arabic or Polish. Many parents claimed that their children mostly communicated in German with other children and in the playground. Nevertheless, 6 parents said that their children spoke only Portuguese, while 2 reported that more Portuguese was spoken than German. In addition, 1 child spoke Romany, 1 English and 1 Turkish.

On the subject of television habits, approximately half the children watched up to two hours television per day, four up to three hours and three children watched more than three hours. Their favourite programmes were mostly children's films and German series, although sports and soap operas were also watched in Portuguese by four families. A few children also listened to Portuguese music.

### 5.3 Importance of the German and Portuguese languages

The parents were also questioned about their attitude towards the importance of the two languages used in bilingual class instruction. For that purpose, there was an initial standardized question concerning the importance of the language, to which they could choose between very important, important, not very important, no opinion, do not know. This was followed by an open question asking their reasons for the previous answer. When the languages were considered to be important or very important, the child's perspective was also requested via the question: Does your child share your opinion?

## Importance of the German language

Of the 25 parents interviewed, 23 considered the German language to be "very important" and the other 2 as "important". The parents of the monolingual German children ( $\mathrm{N}=2$ ) mostly stated that this was their mother tongue and Germany their country of residence. Furthermore, some mentioned its importance for school and further studies, as well as professional achievement. Two parents also referred to interpersonal relations and friends.

The parents of the bilingual children gave reasons such as: residence in Germany (8); language of the future profession (8); school and "Ausbildung" (7); future prospects (6); friends (4) and language of communication (2).

As to the parents' opinion about the importance of the German language from their child's perspective, the majority (19) answered that it was very important and 4 claimed it was important, with only 1 mother saying it was not very important.

## Importance of the Portuguese language

18 parents considered the Portuguese language to be very important, 4 said it was important and 1 thought it was not very important. Interestingly, all monolingual German parents ascribed the highest importance to the Portuguese language. Nonetheless, the reasons for these answers differ: the monolingual parents mentioned school, holidays, the job market and friends as their main reasons why they valued the Portuguese language highly, whereas the bilingual parents had in mind first and foremost a possible future in Portugal, Brazil, Cape Verde or Angola (18). Other reasons for the importance of the Portuguese language within the bilingual families were: family (9), job market and competition (6), holidays (4), importance of the acquisition of two languages (2) and some countries have Portuguese as official language (2). Additionally in some of the families, Portuguese was the mother tongue of one of the parents, in which cases the interviewee stressed the importance of being able to communicate with that parent (2).

When asked about the importance of the Portuguese language from the child's perspective, 10 parents were not sure, preferring not to answer; 12 claimed their child considered the language very important or important, and 2 did not know. Reasons given for the degree of importance were family (6), school (3), friends (2), ease in acquiring other languages (2), and communication with the Portuguesespeaking parent (2).

### 5.4 Parental schooling and occupation

Regarding this aspect, the following data were collected:

- number of years completed in various educational establishments in Germany;
- country of school attendance.

After the data were collected, the type of schooling ("Grundschule," "Hauptschule," "Realschule," "Gymnasium," "Gesamtschule," etc.) was reconstructed through the number of years of school attendance. For example, a parent who had attended a school in Portugal for eight years was put under the category of compulsory schooling. Likewise a parent who had been to school in Germany for ten years was classified as "Mittlere Reife". As expected, this process of reconstructing the various educational possibilities led to a number of uncertainties. Imprecise answers were classified under the lowest level of schooling.

## Schooling

As shown in Table 10, $62.5 \%$ of the parents went to school in Portugal (29) and Brazil (1), having completed either primary or compulsory education. Only a small number (4) finished secondary education in Portugal. Most of these parents did not attend the school system in Germany after having emigrated. A few parents claimed to have attended language courses in private institutions, though these were mostly Portuguese, which meant they were not integrated into the German educational system. 2 parents claimed to have studied for two years in a "Gesamtschule," having interrupted their studies in order to work.

Table 10 - Country and type of school.

| Education in Portugal / Brazil (N=30) |  | Education in Germany (N=15) |  |
| :--- | :---: | :--- | :---: |
| Type of school | Number | Type of school | Number |
| No school attendance | 1 | No school attendance | -- |
| Primary school (4 years) | 13 | Primary school (4 years) | 2 |
| Completed compulsory schooling (6-9 <br> years) | 12 | Hauptschule | 4 |
| Completed secondary school (12 years) | 4 | Realschule | 4 |
| Degree | -- | Gesamtschule | 1 |
|  | Gymnasium (Abitur or Fachabitur) | 2 |  |
|  | Degree | 2 |  |
|  |  | 3 |  |

As for the monolingual German parents, most had attended a "Haupt-", "Real-" or "Gesamtschule" (6), a Gymnasium (2) or a technical college ("Handelskammer") (2). Consequently, it can be concluded that the educational level of this bilingual class is fairly low, especially when compared to the other bilingual classes in Hamburg (Gogolin, Neumann and Roth, 2001).

## Professional occupation

With regards to parental occupation, two questions were asked about both the interviewee and their partner:

- Had they received professional training;
- Did they practise that profession.

These questions were formulated in an open way, so that the answers were categorized with the help of the International Standard Classification of Occupations Scale ${ }^{111}$ (ISCO-88). Due to this process of post-classification, some of the answers were ambivalent and were attributed to the lowest category. ISCO distinguishes between ten major groups of occupations:

1. Legislators, senior officials and managers

Occupations belonging to this group include directors, executives and managers.
2. Professionals

This group consists of scientists from all areas, for instance university professors, doctors and artists.
3. Technicians and associate professionals

This category lists all technical workers working with physics, engineering and health, but it does not include scientific teaching occupations and other technical workers, such as police officers, administrative personnel, etc.
4. Clerks

This category contains office workers with and without direct contact with clients, as secretaries or accountants.
5. Service workers and shop and market sales workers

This group includes occupations such as hairdressers, retailers, or beauty specialists, as well as workers in the field of personal care.
6. Skilled agricultural and fishery workers

This category incorporates occupations such as gardeners and fishery workers.
7. Craft and related trades workers

This professional group includes building and metal workers, as well as handicraft workers.
8. Plant and machine operators and assemblers

Under this group, all workers who deal with machines in industrial context are classified, as well as those in the clothing industry and transport.
9. Elementary occupations

The professions classified under this group are sales and other helpers, such as domestic helpers, caretakers, porters, garbage collectors, etc.
10. Armed forces

In their spectrum of possible occupations, the categories of the International Standard Classification are broad, in that they do not present a clear hierarchy between occupations; they help, however, to establish some main tendencies; Groups 1 and 2 can be associated with degree-level occupations; Group 3 corresponds to a mid-

[^58]level qualification of the "qualified but not scientific workers"; Groups 4 to 7 include the typical professions following a German "Ausbildung" and 8 and 9 refer to unskilled work.

After an initial analysis of the questionnaires, the following categories were added to those of ISCO: student, home help, no profession and unemployed. As shown in Table 11, almost half the parents (21) were not trained for any specific profession, and this number is particularly high in the case of the parents who went to school in Portugal / Brazil and had no more than primary education. The majority of these parents (12) work in Group 9 occupations (particularly as cleaners). In addition, the number of women working as domestic helpers (7) was relatively high, and they were all from bilingual families. Five parents were currently unemployed, two from monolingual German families and the other three from Portuguese families.

Table 11 - Parental occupations: training and practice.

|  | Interviewee ( $\mathrm{N}=24$ ) |  | Partner (N=24) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Professionally trained | Practising professionally | Professionally trained | Practising professionally |
|  | Number | Number | Number | Number |
| Legislators, senior officials and managers | 0 | 0 | 0 | 0 |
| Professionals | 3 | 1 | 1 | 1 |
| Technicians and associate professionals | 3 | 2 | 0 | 0 |
| Clerks | 2 | 1 | 1 | 1 |
| Service workers and shop and market sales workers | 3 | 1 | 2 | 2 |
| Skilled agricultural and fishery workers | 0 | 0 | 0 | 0 |
| Craft and related trades workers | 2 | 1 | 1 | 2 |
| Plant and machine operators and assemblers | 1 | 1 | 0 | 0 |
| Elementary occupations | 0 | 6 | 4 | 6 |
| Armed forces | 0 | 0 | 0 | 0 |
| Student | 1 | 1 | 2 | 2 |
| No profession | 8 | 8 | 13 | 13 |
| Home maker | 0 | 1 | 0 | 6 |
| Unemployed | -- | 1 | -- | 4 |

Of the parents that had learned a profession, 5 worked in occupations belonging to Groups 4 and 5 of the ISCO scale, mostly related to trade, and 4 had professions listed in Groups 2 and 3, mainly connected with education (high school or nursery school teachers). Employment in industry and manufacturing (Groups 7 and 8 ) was, very common especially among the Portuguese parents, although some of them reported that they used to work in this area and eventually shifted to the catering business, having lost their jobs or most of their benefits.

### 5.5 General appreciation of the bilingual class

As to the languages and linguistic usage within the families of the bilingual class, there was a predominance of Portuguese, either as the exclusive means of communication or alongside the use of German (basically valid when parents are interacting among themselves or addressing their children). On the other hand, the children tended to make more use of German, not only when directly answering their parents, although in this case they might also resort to Portuguese, but especially when communicating spontaneously, talking to siblings or interacting with their peers. Therefore, it can be concluded that the supremacy of the German language increases enormously, not only within the educational setting but also within private spaces and other socialization institutions.

As far as the acquisition of foreign languages was concerned, many Portuguese parents had not learned any foreign language through the school system, mostly due to their low educational level. As expected, English and French were generally the languages that had been most studied, particularly in the case of the German parents or the Portuguese parents who had had at least 12 years of schooling.

As to the question of code-switching, the families who communicated exclusively in just one of their languages generally avoided linguistic mixing, while those that used both languages in their daily interactions tended to code-switch more often. The children, for their part, code-switched frequently, particularly when communicating in Portuguese, which also contributed to the dominance of German.

Regarding other socialization environments, most of the children had gone to some sort of pre-school establishment, especially if they were born in Germany or had immigrated before the age of three. In these cases, there was very little encouragement for multilingualism on the part of the institution, counteracting the linguistic diversity and cultural heterogeneity experienced daily by the families in their everyday lives (most parents mentioned the presentce of several languages in their neighbourhoods). The German language was also reinforced by the number of hours spent watching television. Almost all the children watched two to three hours a day, predominantly in German. None of the families provided an alternative programme for the evenings. Regarding parental education and occupation, most of the parents had completed their education in Portugal and had not gone beyond primary or compulsory schooling, a fact that makes the general parental education standard of the bilingual class very low. Consequently, they worked predominantly in elementary occupations, (in accordance with the ISCO classification), usually related with industry, catering or cleaning, with some of the women working as home helps. Amongst these parents, there were also many unskilled workers, who had not been trained for any profession. Other parents with degrees from higher education institutions work in the service industries or in education-related occupations. The German parents generally had a higher educational level, working as technicians,
clerks or professionals. Nevertheless, the average ISEI level of this class was extremely low; ${ }^{112}$ indeed, it was the lowest of all the bilingual schools in Hamburg.

Regarding the expectations towards bilingualism endorsed by the school, the Portuguese parents displayed higher expectations for language acquisition, as they envisaged that their children would learn both languages fully and accurately in all possible areas. The emphasis on intercultural competence in bilingual and monolingual families also played an important role, particularly regarding tolerance and understanding of other cultures. Many parents referred to the importance of these social skills as being connected to such a bilingual model, since different ethnic groups and social classes are represented within the class.

## 6. Comparison of the three groups of the sample in relation to the SIOPS and ISEI indexes

As this research focuses primarily upon the bilingual students at the Rudolf Ross School, the questionnaires administered to the two other groups will not be analysed so extensively. These groups functioned as control variables and are valid for their comparative function but not due to the intrinsic values they may display. Thus, the information about parental schooling and family linguistic practices will not be explored for these two groups.

Table 12 - Mean and standard deviation of the ISEI and SIOPS indexes for the three groups.

| Group |  | ISEI | SIOPS |
| :--- | :--- | :--- | :--- |
| Rudolf Ross | Mean | $\mathbf{2 9 . 0 2 6}$ | $\mathbf{2 8 . 5 7 9}$ |
|  | Standard deviation | 15.163 | 13.867 |
| Bilingual without bilingual education | Mean | $\mathbf{3 2 . 8 4 2}$ | $\mathbf{2 9 . 6 8 4}$ |
|  | Standard deviation | 13.430 | 12.570 |
| Monolingual in Portugal | Mean | $\mathbf{2 7 . 6 8 2}$ | $\mathbf{2 8 . 5 9 1}$ |
|  | Standard deviation | 10.754 | 6.766 |
| Total | Mean | $\mathbf{2 9 . 5 6 9}$ | $\mathbf{2 8 . 8 4 8}$ |
|  | Standard deviation | 13.623 | 11.842 |

In order to establish a basis for comparison between the three groups, the relevant data are those related to the socioeconomic status of the families. According to Ganzeboom and Treiman (1996), the ISEI and the SIOPS are the two most internationally used measures for comparison of occupational status. After establishing the indexes for the three groups, based on the ISCO tables, a non-parametric test revealed that there were no significant differences between the groups, although the ISEI level presented some disparities (cf. Table 12).

[^59]The SIOPS figures are closely related for all three groups and, as mentioned above, the small differences found for the ISEI are not statistically significant. However, when the questionnaires were analysed in a more qualitative manner, some differences became apparent, although they were not decisive. The two groups of bilingual students in Hamburg were very similar as regards parental education level, linguistic practices within the families and immigration history. However, the students of the submersion group attending extra-curricular Portuguese classes were exclusively from Portugal, not from other Portuguese-speaking countries. Despite this, the differences were not substantial, particularly concerning the occupational status of the parents, as the vast majority of the families worked in socalled elementary occupations as defined by the ISCO scale

The families of the monolingual students in Portugal were, as expected, qualitatively different from those of the bilingual groups, as their background was not marked by migration and their everyday life was not subject to multilingualism. Nevertheless, most of those parents also worked in jobs classified by the ISCO as elementary occupations. As the school was not far from the Atlantic Ocean, a considerable number of the fathers worked in maritime occupations (fishermen or workers in canneries for fishing products), while the mothers were either housewives or worked in the retail sector, again, predominantly, with fish products.

Despite some inevitable and predictable qualitative differences between the three groups, their socioeconomic status could be assumed to be comparable, for the purpose of this research.

## 7. Cognitive skills: comparison of the three groups

Apart from socioeconomic factors, another context variable was added to this study in order to guarantee the comparability of the three samples, thus eliminating the possibility of results being influenced by external factors. By applying an intelligence test, it was therefore possible to compare the general cognitive level of the three groups, so that possible differences in results could not be attributed to individual differences at this level.

The test applied was the KFT (Kognitiver Fähigkeits-Test) for sixth graders. This test is one of the most commonly used in educational contexts both at an individual as well as group level and includes the following areas: a) language comprehension; b) language cognition; c) arithmetical reasoning; d) calculation; e) visual cognition, and f) constructive skills. As it includes both verbal and a non-verbal tests and the purpose of its application in this study was to determine group comparability, not all parts of the test were used; given the presence of monolingual students in Portugal and bilinguals, only the non-verbal sub-tests were applied. The authors of the test (Heller and Perleth 2000: 10) describe them as follows:

N1 (Classification of figures): There is a row of three or four frms which can be classified in accordance with given signs (shape, shading, position, etc). The objective is to discover which of five other figures fits into the group. ${ }^{113}$
N2 (Analogies of figures) Analogously to V3. ${ }^{114}$ Instead of word pairs this test is about figure pairs. ${ }^{115}$

N3 (Folding task) An imaginary 'sheet of paper' is folded several times; then holes (also imaginary) are made in it. The aim is to decide which pattern is formed, from five given patterns, upon opening up the paper. ${ }^{116}$

An example of the tasks for the sub-test N 2 is given in Figure 12.


Figure 12 - Example of a task of the KFT non-verbal test.
There were two versions of the test (A and B) in order to eliminate test-specific answers, and the pack included an answer sheet, test booklet and manual. The test booklet was translated into Portuguese by a bilingual assistant of the project "Bilingualism and Education in a Re-Migration Context" being carried out at the University of Minho, Portugal.

The instructions and times given in the manual were followed with all three groups of the sample, and the following data was collected:

- 22 KFT-Tests at the Rudolf Ross School;
- 12 KFT-Tests of bilingual students in submersion classes;
- 12 KFT-Tests Portuguese monolingual students.

Non-parametric tests revealed that there were no significant differences between the performances of the three groups. Table 13 shows that, for all sub-tests, results differ very little with relation to the school year and school type. However, the group of bilingual students at the Rudolf Ross School tended to achieve lower scores in all

[^60]three sub-tests. The table presents the results of the N1, N2 and N3 sub-tests, according to the analysis suggested in the manual; first, using the figures related to the school year (sixth grade) and secondly, to the school type ("Gesamtschule").

Table 13 - Mean and standard deviation of the KFT non-verbal sub-tests for the three groups according to school year and type.

$\left.$| Test | Group |  | N | Mean |
| :--- | :--- | :---: | :---: | ---: | | Standard |
| ---: |
| deviation | \right\rvert\,

## 8. Conclusions: comparability of the sample

The families included in the sample from the Rudolf Ross School have been described as having low socioeconomic status and educational level. This group was also marked by linguistic heterogeneity and a positive attitude towards multilingualism in general. The three groups comprising the sample were also compared in terms of the families' socioeconomic and educational level, as well as the students' cognitive skills. As the differences found were not statistically significant, the comparability of the groups is considered to have been established.

# VIII. Development of narrative academic language: narration in bilingual written and oral contexts 

> Wer gut erzählen kann, erfreut sich der Wertschätzung seiner Umgebung. Wer zu oft erzählt, kann in Konflikt geraten mit den institutionell verlangten Tätigkeiten; wer schlecht erzählt, steht leicht abseits, und wer es ganz lässt, sieht seine sozialen Handlungsmöglichkeiten erheblich eingeschränkt. Konrad Ehlich

This study focuses on students' narrative competence. But what exactly is narrating? What distinguishes everyday narration from narration in educationally specific contexts? And how do bilinguals narrate in both languages? This chapter aims to provide an overview of these areas of research in order to frame data analysis in the existing literature. Furthermore, it intends to determine the relevance of narration for school contexts, particularly in the case of diverse linguistic settings.

## 1. Narration as general concept

The concept of narration is extremely broad. It is something that takes place every day in different contexts, and there are different types, depending mostly on the situation in which it occurs. Ehlich (1980) considers narration to be an active part of the everyday "Lebenswelt" of most individuals and includes in this broad concept activities ranging from the simple listing of events to detailed storytelling. Moreover, he establishes a difference between what he calls Narration 1 and 2 (cf. Ehlich, 1983). The first wide-ranging concept includes all activities related to narration in general, such as reporting, describing, communicating, informing, etc, while the second, which is more restricted, includes accounts of events experienced by the narrator himself. However, events belonging to Narration 1 may also have been experienced by the narrator himself. The decisive differentiating feature is offered by the term "story" - a narration achieves the status of a story when it is organized in accordance with a particular structure and is distinguished through an unexpected occurrence. According to the author, "the unexpected shapes the organizational centre of the story, and with it, the structure of what is told, which becomes narration" ${ }^{117}$ (1983: 140).

For Ehlich (1980) the act of narrating is as banal as most of the subjects that are actually narrated every day. However, this does not diminish the importance of this activity, given that even the most banal narration is an extremely complex linguistic undertaking. However, in Quasthoff's view (1980), everyday narration is far more than a mere linguistic form, fulfilling the need to communicate with others, as for instance overcoming isolation or receiving/providing knowledge about events. Ra-

[^61]ther, it is the communicative transmission of experiences whose structure and content depend on the circumstances of the specific interaction. He identifies basic elements of narrations within an interactive context, distinguishing between content and form-specific features. The first features define the concept of the story within the narration, while the latter include typical linguistic devices common to everyday narrations. These distinguish the narrative from other forms of discourse, particularly because it is "(...) rather a scenic and less a technical representation of past actions / events" ${ }^{118}$ (1980: 27). The features he identifies are as follows:
Content features:

- the text refers to an event or action which lies chronologically behind the point of narration;
- the narrated story is a particular event and thus clearly identifiable both temporally and spatially;
- the story includes a minimum degree of uncommon events;
- the speaker is identical to one of the characters involved in the story (agent, victim, observer, etc.).
Formal features:
- evaluative and expressive linguistic devices;
- reported speech as an attempt to imitate one of the characters or noises in the story;
- high degree of detailed forms in the representation of the story with particular concentration on some phases of the event continuum;
- use of narrative present tense, at least in these concrete phases of concentration.

Many other definitions of everyday narration have been offered, following either a more linguistic or sociological approach. For Flader and Hurrelmann, for example, narration is a " (...) linguistic realization of a single past experience which allows the listeners to participate in unfamiliar experiences" ${ }^{119}$ (1984: 224). For Polkinghorne it is "the primary form by which human experience is made meaningful. Narrative meaning is a cognitive process that organizes human experiences into temporally meaningful episodes" (1988: 1, quoted in Nelson 1996: 186). In spite of the variety of definitions, it is undisputed that narrating events is a feature of everyday life and obeys certain structural rules, which demarcates it from other speech events.

### 1.1 Narrating, reporting and describing

The central research on the delimitation of the term "narration" in relation to reporting or describing was conducted by Rehbein. All three speech forms are part of the act of speaking and refer to events external to the ongoing communication

[^62]situation. As maintained by Rehbein, "While describing, the listener 'makes his way through the image space,' while reporting he performs a 'conceptualization' and while narrating he participates in a fictional reproduction of the circumstances" ${ }^{120}$ (1984: 69). Thus, while describing, the speaker provides information about spatial aspects related to the event - reality is consequently timeless - while in reporting and narrating temporal marking assumes an important role. A description conveys perceptions; however a report adds assumptions or possible intentions of the persons involved, considering the event after it has been completed. It supplies the listener with aspects of the event that can influence future decisions. Narrating fulfils the social aspect of exchanging experiences. The narrator gains visibility over the events during the act of verbalizing them, leading the listener into a fictional world, in which he delineates the view point while narrating.

The listener therefore receives information mainly through a description, gets help in decision-making through a report and participates in a joint construction of a fictional world through a narration. Narrating triggers a number of reactions within the listener, ranging from sympathy, to amazement or relief (Rehbein, 1984).

### 1.2 The unexpected as a sign of narration

Although there is little consensus about the span of the concept of narration, most authors agree that it is characterized by "certain minimum conditions of unusualness" ${ }^{121}$ (Quasthoff, 1980: 27). Wolf (2000) states that the identification of an event or an action as unusual and worthy of narration is the prerequisite for a narration. The unusual is thus a sign of narrativity and contrasts with other events which are characterized by normality and expectability.

For Quasthoff the opposite relation refers to a contrast between the expectations of normality and plans of the original events, on the one hand, and the breaking of those plans, on the other.

### 1.3 Labov and Waletzky: the evaluation of narration

According to Edwards:
... a major contribution of Labov and Waletzky was the demonstration that everyday spoken narratives, especially those of 'unsophisticated speakers,' could be systematically studied without resort to the types and schemas already developed for literary works (1997: 139).

These authors argued that there are five basic narrative supra-constituents which can be found in most oral narrations. They analysed various versions of personal

[^63]near-death experiences in order to relate the formal characteristics of a narration with its functions. Their research had a considerable impact on narratology and on many models formulated afterwards.

The necessary internal constituents of an effective narrative, according to the Labovian framework (Labov and Waletzky, 1973), include, firstly, an abstract providing the listener with the basic information about the entire sequence of events of the narrative, through which the complicating moment will reveal the problematic of the story. Without it, the sequence of events is not considered to be worth narrating, which consequently means that it can only be spoken of as a story when the action is marked by some kind of rupture.

The orientation supplies information about the time and place of the events of a narrative, the identities of the participants and their initial behaviour. The authors establish a difference between free and narrative constituents. While the latter present the sequence of events so that they cannot be changed within the narration without also changing the temporal sequence, the free constituents often take on the function of commenting and evaluating experiences. The evaluation, also a part of the narration, is thus a set of evaluative devices which are used to establish the evaluative point of the story, suspending the action before a critical event, and establishing that event as the highpoint of the narrative. The authors define evaluation as all parts of a narration " (...) which show the attitude of the narrator in relation to his narration through emphasis given to the relative importance of certain narrative unities with reference to others" ${ }^{122}$ (1973: 118ff). Labov claims that at the peak of the complication there is an accumulation of such free and evaluative parts. However, this view has been criticized. Quasthoff (1980), for example, mentioned that evaluation does not always appears between complication and coda and is per se not a function of the narration but rather a formal or content means to achieve other functions. For him, evaluation represents "the character of sentences as linguistic representation as a specific way of seeing events" (1980: 38). Boueke and Schülein (1995), for their part, claim that evaluation can occur at different parts of a narration. Other critiques of the central role of evaluation in Labov and Waletzky's model have focused upon the absence of relevance given to the unexpected as sign of a narration. Wolf (2000) claimed that this model is too driven by its peak evaluative part - the "peak of maximum complication" ${ }^{123}$ (Labov and Waletzky, 1973: 114) - and the question of relations beyond the temporal sequence of events is not considered.

In a later text (1980), Labov corrects his strict view of evaluation by asserting that evaluative elements can serve not only to shape a narrative peak but rather can appear isolated along with other constituents.

The complicating action presents the issue of the narrative, reporting a subsequent event in response to potential questions such as: And what happened [next]?

[^64]It is essential for a narration to become a story. This complication is followed by a resolution, reporting how the complicating action achieved closure. Many narrations end with a resolution, however, others have an additional element named coda. The coda returns the narrative to the time of speaking, precluding the potential question of: what happened next? It explicitly marks the end of the narration and concludes the role of the narrator (Labov and Waletzky, 1973).

### 1.4 Literary narration

Since very early in literary studies, there has been a belief that a written narrative obeys certain structural rules, with a beginning, a middle and an end. During the seventeenth and eighteenth centuries, this structure became the norm. In "On Realism in Art" (1921), Jakobson claimed that literature does not exist as a separate entity. On the contrary, he and other semioticians preferred the view that all texts, whether spoken or written, are fundamentally the same, except that some authors encode their texts with characteristic literary qualities which enable them to be distinguished from other forms of discourse. Nonetheless, the trend is clearly to address literary narrative forms as separable from others. This was first seen with the Russian formalists through Shklovsky's analysis of the relationship between composition and style, and in the work of Propp, who analysed the plots of traditional folktales and identified diverse functional components. This trend continued in the work of the Prague School and of French scholars such as Lévi-Strauss and Barthes. It led to a structural analysis of narrative and an increasingly influential body of modern work, raising central epistemological questions: What is text? What is its role in the contextual culture? How is it manifested as art, cinema, theatre, or literature? How are poetry, short stories and novels of different genres?

Literary narrative is thus a genre including such literary forms as novels, short stories, biographies, etc. Through the act of writing, the active listeners of an oral narrative become passive readers as they have no opportunity to interfere in the story. The only possible interference in a literary narrative is conducted from an external perspective by professional readers, such as critics or literary scholars. Readers can only take on an active role through their own imagination and mental experiencing of the story being narrated, while they are being conducted into the fictional world of the author. Thus, according to Ehlich (1980), literary narration leads readers to fictional realities beyond their everyday life. Their own narration ability diminishes as their passivity increases. However residues of narration ability also lie in this apparent passivity of the reading act. For Dehn (1986), the difference between literary and everyday narration basically rests within the communicative situation. Everyday narration often implies interaction and the narrator expects some sort of reaction or even intervention from the listener; literary narrators hold the knowledge alone and are able to transmit it without expecting interference.

# 2. Acquisition of narrative competence 

Das Erzählen ist ein komplexes sprachliches Handlungsmuster, das nicht vollständig im Rahmen des primären Spracherwerbs angeeignet wird. Die Erzählkompetenz wird bis in die Adoleszenz hinein ausgebaut, nimmt man literarische Formen hinzu, dauert die Entwicklung noch länger. Becker-Mrotzek

Learning to narrate is, along with other linguistic skills, an important aspect of both oral and written language acquisition (Hausendorf and Wolf, 1998), as it implies the achievement of some narratological knowledge. On the one hand, as mentioned above, the narrated events should in some way be unusual so that they are worth narrating and engage the recipient. The potential narrator must also be able to produce a coherent text, obeying certain linguistic and structural rules that distinguish narration from a description or a report of events. According to Boueke and Schülein (1992), if the narrator wishes to include the narration in an ongoing conversation, he must also have the skill to communicate his intention of narrating, thus claiming his right to speak and the acceptance of the listeners.

In order to deal with the topic of narration within educational contexts, it is necessary to obtain an overview of current theories about the acquisition of narrative skills and their determining aspects. In this respect, there are two main theoretical trends, depending on whether one sees narration as an interactional process or a cognitive skill. The empirical study conducted by Boueke and Schülein (1995) holds that the acquisition of narrative skills is predominantly cognitive in nature, while Hausendorf and Quasthoff (1996) claim that it depends predominantly on the interaction situation. Although both studies set out to prove different things, their results overlap at crucial points; both conclude that the development of narrative abilities is not commensurate with a child's entrance into an educational institution but rather extends itself throughout adolescence and even later.

In this study, the Boueke and Schülein ${ }^{124}$ model (1992) will be explained and used for the purpose of data analysis, as their corpus includes narrations by children of a similar age group to those in the sample. Furthermore, data was collected in a comparable way to that of the authors, thus focusing on cognition rather than interaction. Their concept of narration refers to everyday narration and not literary texts, including forms such as reporting or informing. Similarly to other theoretical assumptions discussed above, narration happens around some unusual event which acts as the motivation to start narrating. However, they do not share Ehlich's view that a story must refer to self-experienced events nor Quasthoff's statement that the narrator must identify with one of the people involved in the story. The concept of story for Boueke and Schülein thus comprises narrations which do not necessarily

[^65]refer to self-experienced events "but which may have been heard or reproduced by the media" ${ }^{125}$ (1995: 116).

Their narrative structural model is based on the study of the development of narrative skills of 96 children - five-, seven- and nine-year-olds - the results of which were later compared to data from adults. In their corpus of transcribed oral narrations, they analysed the way in which the children made use of the structural constituents identified by Labov and Waletzky, as well as of possible evaluative means. They set out to answer the following questions: How do the children structure their narratives bringing out the role of the complication as central disruption in the narrative continuum, thus making the story worthy of narration? How do they linguistically convey an emotional and evaluative textual elaborateness, distinguishing the story from a mere objective report?

In order to be able to compare the data, they used laboratory recordings of some 270 narrations by these children, who were given a series of pictures and told to narrate them as excitingly and interestingly as possible (Boueke and Schülein, 1991). With this empirical study, the researchers aimed at proving that the report of an unusual event within a story follows a particular narrative structure. Hence, each narration can be assigned to a precise level within their developmental model, allowing the determination of a stage of narrative skills acquisition. The analysis of the data resulted in the development and determination of four narrative levels, which give evidence of a fourfold narrative typology:
i. The five-year-olds predominantly composed narratives of the first type, which the authors characterized as the level of isolated events - "isolierter Ereignisse" (Boueke and Schülein, 1995: 79). The children were able to list the isolated events forming the narrated sequence. However, they did not succeed in creating coherent relations between the events, reducing the plausibility of the story. These narrations are mainly characterized by many "Bildpropositionen" (idem: 157) - semantic units containing "circumstances or actions which are graphically represented in the picture shown" ${ }^{126}$ (idem) - and few "Interferenzen" "semantic units whose contents go beyond the verbalization of the graphic picture elements i.e. 'new' information is supplied and relations between single circumstances, actions and pictures are established ${ }^{127}$ (idem).
ii. The second narrative level includes the so-called linear connections - "lineare Verknüpfung" - by means of which the children are able to link the previously isolated events in a temporal sequence. For this purpose, they predominantly use the copulative coordinating conjunction "and (then)," establishing a narra-

[^66]tive continuum where the events are ordered. Nonetheless, at this level, no causal or intentional relations are linguistically indicated.
iii. In the logical structuring of actions level - "handlungslogischen Strukturierung" - the texts follow a more complex pattern, centred on a particular event which disrupts the narration, largely following the Labovian structure. The characters and place where the action takes place are correctly introduced in a sort of "orientation" and are referred to during the narration in some form of coherent devices. Linguistically discontinuous aspects of the narrations are marked through so-called event-structure markers, ${ }^{128}$ so that the different units acquire a specific function: a properly marked setting introduces the situational framework in which the next event will take place. At the same time, the normal course of events, which will later be disrupted, is presented. The typical eventstructure markers related to the setting are the introduction of the main characters, place and time of the actions. The "Episode" represents the disruption of the normal course of events established by the setting, by introducing a series of events which contrast to what would be expected. This happens through one or more triggering events and their consequences. The most typical event-structure markers in this part are the introduction of a new place and time or even of new characters or situations. More concretely, the disruption can also be marked by the use of adversative connectors such as "but" or "however", normally in connection with other temporal markers, such as "then." The end is specified by a new contrast to the situation presented in the "Episode." The original circumstances are either re-established or a solution for the disruption in the normal course of events is provided. This is again linguistically marked by adversative connectors. The third level is thus more than a simple chronological sequencing of events but rather is oriented by the meaning behind these events and organized in accordance with a complex structural and linguistic pattern, mostly characterized by discontinuity.
iv. The fourth and last level is that of the narrative marked and structured texts "narrativ markierter und strukturierter Texte." The narrations contain an orientation, complication and resolution, even if only partially, and are characterized by so-called affective markers. The most decisive attribute of texts at this level is the attempt to involve the recipient in the narration by composing it in the most interesting and thrilling way possible. Approximation to the listener is achieved through linguistic elements gathered under the term affective markers, which help to provide an emotional character to the narrative disruption.

Boueke and Schülein distinguish between three different categories of affective markers:

[^67]i. The first category is the "Valenz" (value judgment), which includes the great majority of the affective markers and is the clearest means of establishing a contrast or disruption in the narrative. It features linguistic means which underline positive or negative connotations. This is done through the choice of expressive lexical units or the use of intensifiers, such as "much" or "many." Additionally, the motivation behind the actions of the characters or reference to their internal plans is also added.
ii. The second category goes under the name of "Plötzlichkeit" (suddenness), intending to accentuate the forthcoming unexpected event and increase the disruptive and emotional aspect. Most of the linguistic resources used in this category are temporal adverbs, such as "suddenly" or "unexpectedly" as well as everything which might indicate the "cluelessness of the 'victim' before the complication (...), ${ }^{129}$ (idem: 116).
iii. The third category is the "Psychologische Nähe" (psychological proximity), with the main intention of involving the listener in the events so that $\mathrm{s} / \mathrm{he}$ can identify with the characters and directly share in their experiences. Through this proximity to the characters being narrated, the listener can perceive the events more intensely. Linguistically, psychological proximity can be attained through the use of direct or indirect speech, presentation of the thoughts of the characters or an account of acoustic or sensorial impressions. In addition, a report of gestures, and the use of mimicry or onomatopoeic sounds can contribute to the listener's involvement in the narration.

Table 14 summarizes the four developmental phases of Boueke and Schülerin's model, as well as its main features.

Table 14 - Summary of phases in the acquisition of narrative competence (Boueke and Schülein, 1995).

| Phase | Features |
| :--- | :--- |
| I. Isolated events | Spatial and deictic referencing (here, there) <br> Absence of temporal interlinking |
| II. Sequencing strategy | "And then" clauses <br> Absence of causes or explanations |
| III. Contrasting strategy | Markings of event structuring <br> Complex temporal structures <br> Adversative connectors <br> Realization of macro constituents |
| IV. Involvement strategy | Affective markers <br> Suddenness <br> Value judgments <br> Psychological proximity |

129 "Ahnungslosigkeit des 'Opfers' vor der Komplikation (...)."

### 2.1 Discussion: Boueke and Schülein's model and bilingualism

Although this model of narrative acquisition skills, like much of the research in this area, was tested and developed with monolingual subjects, it has some central implications when considering bilinguals. According to Boueke and Schülein, firstlevel texts were produced mainly by five-year-olds, while seven-year-olds' narrations could predominantly be identified with the second level, although a small minority was found to be of the first or third. Most nine-year-olds tended to produce texts at the fourth level, with a few still at Level 3. For the researchers, the acquisition and development of narrative skills can be seen "as a gradual construction of this pattern 'in the brain' of the children" ${ }^{130}$ (1991: 81). Furthermore, they claim that this development "must be interpreted as a self-steered process in the essentials" ${ }^{131}$ (1995: 199).

As with Piaget's (1972) concepts of assimilation, accommodation and equilibration or Wygotski's (1978) notion of the zone of proximal development, Boueke and Schülein argue that the children move from one level to another, until they reach the highest one, having experienced the "'inadequacy' of the level achieved in each case - apart from the 'highest one'" ${ }^{132}(1995: 205)$. This re-structuring of existing mental patterns (accommodation) implies the acquisition of the cognitive presuppositions of the new level, suggesting that they are quite experienced with the level which they are about to leave. The researchers thus consider that the narrative patterns of the nine-year-olds are almost fully developed, while the five-yearolds have rudimentary fragments. Although the way in which this process starts and expands is not explicitly clarified in the model, Boueke and Schülein (1991) presume that it is related to the development of cognitive, interactive and linguistic skills.

First of all, a speaker must identify and understand a certain situation before being able to narrate it. When the existing "Weltwissen [world knowledge]," according to Boueke and Schülein (1991), is not sufficiently developed, the speaker can register the situation, but is not able to conceptualize and relate it, so that causes and consequences of events can become apparent.

An additional precondition for a successful narration is the narrator's ability to imagine the situation in which he wants to narrate and to take the place of the potential listener. This so-called interactive knowledge also enables the narrator to judge if what he is about to narrate is actually worth telling, both for him as narrator as for the listener.

The third precondition, and the one most connected to the question of bilingualism, is the consideration that a story can only be successfully narrated when the narrator has sufficient linguistic knowledge at his/her disposal, because without this, the listener will not be captivated, no matter how exciting the event might be.

[^68]This linguistic knowledge implies not only lexical and syntactical aspects but also the ability to use them to form coherent and cohesive texts, obeying the general orientation - complication - resolution structure.

In practice, these three areas of knowledge are interconnected, so that the development of the one implies the development of the other. Hence the acquisition of narrative skills is closely related to the development of interactive, cognitive and linguistic knowledge.

However, when dealing with bilinguals with reduced proficiency in one of the languages, these three areas are seldom evenly developed, particularly as regards the linguistic resources available. They may have achieved grade-level knowledge interactively and cognitively, while linguistically are only able to reach that level in one of their languages, possibly not that of instruction. Boueke and Schülein's model does not speculate on the question of a possible imbalance between cognitive skills and linguistic achievement in a bilingual setting. However, according to Minami:

> The development of narrative discourse skills is a relatively complex aspect of language acquisition, particularly for persons acquiring two different languages simultaneously. Learning the skills for narrative discourse is especially complicated for bilinguals to the extent that the schema (the organization of knowledge), which provides a cultural framework of events and actions and which affects memory encoding and retrieval, differs for each of the languages used. (2004: 1618)

Regarding Cummins' hypothesis of a common underlying proficiency (see Chapter 2), where cognitive competences common to L1 and L2 are developed and interlinked, it can be hypothesized that many of the narrative skills of bilinguals are, in fact, not language-specific and therefore separated, but rather part of this common cognitive framework. This concerns both elements for textual structuring, such as the Labovian constituents of the orientation, evaluation, etc, as well as communicative competence manifested in the use of sequencing and involving strategies, for example. This study will thus hopefully contribute to knowledge about the acquisition of bilingual narrative skills and the relation between cognition, interaction and language(s).

### 2.2 Other reflections considering the model

For some authors, Boueke and Schülein's theoretical assumptions and data are problematic. Knapp (2001) argues that using a series of pictures as basis for the narrations inhibits the narrator from establishing their own connections between the events, as these are already anticipated in the pictures themselves. Moreover, the narrator also assumes that the listener is familiar with the pictures, a fact that precludes a more elaborate narration of actions or events. When referring to contentoriented aspects of the model, he mentions the role of evaluation, which was not fully transferred from the Labov-Waletzky design. Instead Boueke and Schülein use the corresponding concept of markers and assign it to all constituents of the model where an evaluation may take place. For Knapp (2001: 29) this leads to a
surplus, as there are few constituents which are not subordinated to a specific marker. This problem would not exist if evaluation was to be seen as an ongoing feature within narrations.

In addition, Knapp addresses the question of motivation, by stating that the emotional involvement of the children may be affected by the fact that they are performing a pre-established task, rather than expressing something they actually want to tell. He also disapproves of some methodological aspects of the research, mainly concerning the authors' assumption that the comparability of the narrations can only be assured in a laboratorial setting and therefore not in so-called natural situations. In his opinion, narrations on fairly different subjects can be compared to each other within a substantiated theory of everyday narrations, given that the same narrative and linguistic actions are always fulfilled.

## 3. Narration in educational contexts: written vs. oral

According to Quasthoff (2000a), oral expression is of special importance in everyday classroom routine. However, it is not given as much importance as written expression, which is remarkable when one considers the importance of oral discourse in daily life. Köchling, for example, states that general oral communication within the classroom is only seen as " (...) a necessary, integrative component in certain phases of writing processes" ${ }^{133}$ (2000: 46). Hence it is infrequently the central task of didactic concepts. Köchling provides two main reasons for this bias towards writing. Firstly, in his opinion, the pupils' oral competence is usually more developed than their written skills when they start school. Secondly, it is considerably easier to assess written performance than oral tasks. To my mind, the second of these reasons is understandable, although there are several ways in which oral performance can be assessed within the classroom. The first statement, however, poses a few problems when dealing with bilingual children. As regards pupils' level of oral language acquisition, which language is he referring to?

According to Köchling (2000), however, recent developments in language teaching aim to establish oracy as an independent object of learning, thus emphasizing the role of oral narration, which in his opinion is only rarely the focus of didactic intervention. Nevertheless, some authors question the fact that oral expression should even become a topic in classroom, as it belongs to the set of commonplace activities experienced by the students outside school. Klein, for example (1980), considers that oral narration only serves the purpose of helping to foster students' written skills and is thus only one step in acquiring the rules of written language. In his opinion, a good oral narrator should not be normatively judged by the rules derived for the written form, as narration is embedded in a sociocommunicative context and needs to be connected to situational aspects.

133 "(...) notwendiger, integrativer Bestandteil in bestimmten Phasen von Schreibprozessen."

However, as far back as 1984, Flader and Hurrelmann showed in an empirical study that so-called free narration in the classroom is actually influenced by the rules of educational settings, thus differentiating itself from daily narrative activities conducted outside of the classroom.

Quasthoff states, as a possible justification for the central role of written expression, that many professionals think "speech and understanding develops ... alone and consequently need no classroom mediation" ${ }^{134}$ (2000: 38). However, in her opinion, the growing attention given to writing does not take account of the fact that oral expression is needed as means of participation in all subjects. Her aim is to re-evaluate the definition of oral expression and turn it into an independent object of learning, rather than as a mere by-product of written processes. Thus, the use of oral expression is not to be seen as "a kind of vocally realized ... written language or audible form of ... linguistic structural knowledge, but ... as a kind of interaction which, through the respective use of linguistic forms (as well as vocal and not verbal), produces a specific meaning" ${ }^{135}$ (idem: 36). In her notion of oracy as an independent learning aim, there should be opportunities for discussion, explanation and also narration within the classroom.

Likewise, Frommer (1992) criticises the way in which schools deal with oral expression and sees its ambiguous and undefined place as the main reason for the central role of written narration. Oral narration is thus considered to be an independent form of narration obeying a specific linguistic style and certain aesthetic patterns, marked by spontaneity and unpredictability. These features turn oral narration into something difficult to grasp and reflect upon, which results in the need to put it into writing, thus firmly fixing the words. By doing so, however, prosodic aspects such as intonation are lost. Consequently, he calls for more equality between these two forms of narration and suggests that oral narrations be recorded on video.

The discussion of oral and written narration in school contexts also opens the way for a general discussion on the role of narrative competence for language development in the concrete sense of literacy-related and textual skills, which are decisive for higher school outcomes. For Portmann-Tselikas (2008; 2009), the concept of textual competence is defined as the ability to read texts autonomously, to connect what is read with previous knowledge and to apply the acquired information to future thinking, speaking and acting. Furthermore, it includes the ability to transfer the knowledge into other textual forms, such as summaries or reports, which then allow an appropriate transmission of its contents. In his model of language use, the notion of textual competence plays an important role and for the purpose of the current study it is thus relevant to determine the role of narration for

[^69]the development of textual competence. In his opinion, language development is expanded by exposure to and active dealing with texts. More particularly, at a textual level, it leads to new schemes for the depiction and display of knowledge and, at semantic and syntactical levels, it increases vocabulary and sentence types, i.e. it leads to increasingly differentiated language. As the narrative genre (including written texts, but also picture-based stories and oral narrations) plays an important role in early language acquisition and also during primary school, it is of central importance in linguistically diverse settings.

To determine the position of narration in school contexts, Portmann-Tselikas' model of language use (2008; 2009) will be briefly explored. In his scheme, the field of language use takes on two main dimensions; firstly, there is the dimension of textuality, which can be presented along an axis ranging from dialogicallyorganized to textually-structured; and secondly, there is the dimension of thematic orientation, which can also be displayed on an axis ranging from orientation towards everyday knowledge and forms to orientation towards systematic knowledge. From these two dimensions and the two axes four fields of language use result. Figure 13 shows the model and depicts the positioning of the fields. Their meaning will be explained below.


Figure 13 - Portmann-Tselikas's model of language use (2008; 2009).
The first field describes the dimension of language use related to the management of everyday actions, more specifically, situations of language use within the family or with friends. The second field deals with conscious activities which involve putting events into language, such as everyday narrations, imaginative narrations, small literary texts, transmitting news, etc. The third field is related to the observation and questioning of facts, more concretely, asking for causes and reasons for events. The fourth field describes all language use where the world is somehow comprised in and through language, i.e. the systematic and coherent reproduction of real interrelations in a text. Furthermore, the author claims that, in all four areas, oral and written productions play an important role.

This model is directly linked to Cummins' distinction between BICS and CALP, mentioned previously, whereby BICS corresponds to the first field of basic communicative competence and CALP to the fourth area of textual competence. From a developmental perspective, there are two language acts which play a rele-
vant role in the expansion of the basic competence of children and youngsters: narration and explanation. Narration operates as a means of structuring and reporting experiences and bridges the gap between dialogue and text, colloquial and written language, as well as experiencing and reflecting. Explanation helps us understand and speak about factual issues, i.e. the identification of relations and regularities, the clarification of concepts and the distinction between seeing/experiencing and knowledge. Although these two speech acts are per se very different, PortmannTselikas identifies three common features of considerable relevance in school contexts: a) distance from direct acting, b) realization through language and c) development of concepts and reflection. Figure 14 displays, within the model of language use, the role of narration and explanation in the development from basic everyday communicative competence towards academic textual competence.


Figure 14 - Function of narration and explanation within the development of textual competence (2008; 2009).

As a consequence, narration in school contexts is situated on the threshold between everyday language use, on the one hand, and textually-structured productions, on the other, and thus operates, particularly with younger speakers, as a central passageway towards textual competence at school. The way in which this model functions regarding bilingualism will be explored in the sections below.

## 4. Bilingual narration

As seen above, there is a considerable amount of literature available about narrative textual skills and, more particularly, on narration in educational settings. However, the volume of literature decreases considerably when the factor of multilingualism is added. After listing three different studies, mentioning isolated aspects of some narratives from ethnic minorities in Germany, Knapp states:

Apart from the work of Schwenk, (...) these are the only works in which written stories of children and youngsters from linguistic minorities form the basis for a detailed analysis. ${ }^{136}$ (1997: 24)

[^70]We can also find similar statements in the Anglophone literature:
(...) an increasingly well-explored area of children's language acquisition is the development of storytelling skills, or the development of narrative discourse skills in a broad sense. However, (...) few studies have been conducted using the innovative approach of analysing bilinguals' narratives. (Minami, 2004: 1628)

A few studies have focused on certain aspects related to the textual skills of bilingual children, and these will be described below, as they are relevant to this research.

In her longitudinal study, Rapti (2005) explored the development of textual and argumentative skills in bilingual Greek and German students attending the fourth, sixth and eighth grades. Their texts were analysed for argumentation structure, syntax and lexis, focusing particularly upon the synchronic development of these features and upon possible negative or positive interferences in the children's development in both languages. She demonstrated that argumentative skills tended to develop between the ages of ten and twelve. Regarding linguistic aspects, she detected certain deficits in the students' first language skills. This was mostly true in the case of organizing the beginning of a letter and respecting other formal and communicative features of this sort of writing. In addition, meta-communicative expressions, argumentative skills, use explicit connectors and lexical diversity revealed to be weaker in Greek. She was also able to find some differences in performance over time: "While at the younger age textual competence is at a similar level in both languages, this competence develops in the course of time in favour of the second language" ${ }^{137}$ (2005: 376). According to Rapti, the German language becomes progressively more dominant through the influence of media and reading but also due to pressure from school. On the other hand, the Greek classes lack methods for teaching how to write argumentative texts, which can also have a negative influence on the students' first language.

In her analysis of 102 everyday oral narrations ${ }^{138}$ of German and French speakers, Fienemann (2006) predominantly uses the categories developed by Ehlich and Rehbein. She aimed to study the way first and second language narrations overlap in structure and content, as well as regarding the linguistic resources used. She then developed a typology of ten different narrative structures and matched all of her productions to these. Although her hypothesis had assumed that the narrations would be different in almost all aspects, when she compared the languages, she found that they mainly differed in the type of narrative chosen in relation to some of the events, as well as in the assessment structure.

Concerning bilingual narrative skills in educational contexts, the most significant study was conducted by Knapp. As mentioned, he speaks of "concealed difficulties with language" ("verdeckte Sprachschwierigkeiten") (1997: 5) when refer-

[^71]ring to writing in a second language within a school setting, mostly due to what he calls the "textual-orientation of the school language" ("Textorientiertheit der Schulsprache") which, in his view and similarly to Portmann-Tselikas, is also present in oral communication. His model for analysing bilingual narrative texts has been partially adopted in this study and focuses, very generally, on the composition, reference and linguistic means of the fictional narrations. Knapp concludes that children with relatively developed first language skills achieve a higher proficiency in their second language, particularly concerning academic language and cognitive aptitudes in general. His observation that only a higher written linguistic proficiency enables the composition of a narrative global structure with affective markers confirms other studies on narrative competence of bilingual students. Knapp claims that "Low linguistic ability leads to low narrative competence" ${ }^{139}$ (1997: 226). The relationship between first and second languages is explained through the notion that narrative and textual proficiencies, both related to a macro-structure, can be transferred from one language to the other. The capacity to build macro-structures is thus basically independent of the individual languages. However, lexical, morphological and syntactical proficiency - elements of the so-called micro-structure must be specifically acquired for each language. Therefore, textual and narrative competences belong to the set of cognitive-academic language skills, and are thus available in both the first and second language (Knapp, 1997). However, this author only analysed the German language in his study.

Rehbein, although not directly dealing with narrative texts, studied the role of students' first language comprehension skills by asking them to retell a story in their second language. He concludes that:

After reading a story in German, the Turkish children could only reproduce it incompletely; mostly they broke off after some initial statements. However, after the same story in Turkish was read out to them, i.e. in their mother tongue, they were able complete an entire reproduction into the second language German. ${ }^{140}$ (1987: 115)

Riehl (2001b), focusing on both argumentative and narrative text forms, confirms Knapp's results about the transferability of skills between first and second language when referring to a macro-level of textual composition. Riehl also found, like Knapp, that the students' first language skills were often insufficient to endow the texts with affective markers. When asked to comment on their productions, many students actually mentioned their lack of vocabulary in the first language which would make the story more emotive and exciting. Thus, she concludes that bilingual students in her sample have poorer conceptual skills as regards written narrative and argumentative texts in their first language than in the second. Moreover,

[^72]this lack of written proficiency in the first language leads to an unbalanced bilingualism. She justifies these results with the fact that none of the students in her sample had institutional support in their first language and therefore did not reach a CALP level. Consequently, as there were no students with a high proficiency level in their heritage language, she was unable to find positive interference effects in the second language and mentions the need for further studies with such students.

There are also a number of relevant studies about narration and multilingualism in the English-speaking research community. In his chapter of the volume Narrative Development in a Multilingual Context (2001), where the results of a number of empirical studies on the development of narrative construction within a multilingual context are presented and discussed, Viberg analyses Finnish and Swedish narrations, focusing mostly upon the effects of age in the acquisition of certain aspects of language. Like Knapp and Riehl, he also found that:
... narrative structure, the overall organization of the basic components of a narrative, belongs to a general conceptual level which is available even in the processing of the L2 once a certain linguistic threshold has been passed. The basic components can be observed even in the narrations of the youngest children in this study but there is a continuous development throughout the age-span 5-16 years ... (2001: 127).

Considering proficiency level in the second language, he also concludes:
... what remains to be acquired with increasing age are primarily more sophisticated uses of discourse functions of elements such as connectors or tense markers. As regards lexicon, exponents of the core concepts in basic semantic fields are already acquired at this early age but finer distinctions and stylistically marked choices are subsequently added in increasing numbers. (Idem).

In her study of Japanese and English narrations, Minami also refers to "a crosslinguistically common - possibly universal or quasi-universal - route of development for the creation of well-constructed organized narratives" (2004:1627). Furthermore, she focuses on aspects that will also be analysed in this study, such as the use of passive voice constructions, nominalizations or reported speech.

As to bilingual narration including the Portuguese language, there are very few studies, particularly as regards educational issues. Roth (2003) analysed textual skills at a second grade German-Portuguese class in the bilingual schools in Hamburg, where children had been asked to write picture-based narratives. The study focused on categories such as distinction, complexity and coherence of texts, as possible indicators of improved literacy, and included bilinguals, as well as monolingual German and Portuguese children, thus making a heterogeneous sample. As regards spelling, text complexity and coherence in German, there were few connections found between the linguistic preconditions of the students at the beginning of year and the categories analysed. However, in the case of the Portuguese children, there were significant differences between those that had started school with linguistic knowledge in Portuguese and those who had started to learn it within the bi-
lingual model. Transfers in these areas determined a positive prognosis for linguistic acquisition. In all, the bilingual children with "lebensweltlich"-acquired skills tended to display an important advantage which should not be overlooked; the positive expectations of this model of bilingual literacy seemed to be provisionally confirmed for these children. Interesting conclusions were found for the category of "literacy", which intended to determine emerging textual skills. The author concludes:

The written texts - as opposed to the oral speech samples from the same children - are better structured; already by the second school year of school, the students are able to differentiate between writing and speech, thereby acquiring an insight into literacy acquisition processes. ${ }^{141}$ (2003: 397)

The most recent research in this area has been conducted by the Institute for Theoretical and Computational Linguistics in Lisbon and includes the analysis of 100 narrative texts, taking three main aspects into consideration: narrative structure, textual coherence and cohesion, and syntactic aspects (Caels and Carvalho, 2008). The linguistic combinations included Portuguese and Ukrainian, Mandarin, CapeVerdean Creole and Gujarati. ${ }^{142}$ Although these languages, and especially the socio-cultural aspects related to them, are very different from those mentioned so far, the findings related to the structure of the narrative genre reveal very few differences in the performance of the Portuguese students and those with other heritage languages. The authors claim:

The fact that there is no great variation in students' performance is extremely positive, as it shows that, irrespective of their linguistic circumstances, the students were able to carry out the task that they had been asked to do, i.e. to prepare a narrative text. ${ }^{143}$ (Idem: 159).

However, concerning lexical and syntactical aspects, students that had Portuguese as second language displayed a performance disadvantage. These students were nonetheless able to correctly use structural markers, though they were less successful with regards to affective and emotional features.

The results of these studies thus allow some conclusions to be drawn as regards the role of narration in bilingual school settings.

[^73]
## 5. Conclusions: implications for this research

From this brief reflection, it can be concluded that there are relatively few studies that include the following four aspects: written language, bilingualism, narrative skills and educational settings. This research adds to these four features the study of oral language and consequently possible cross-sections between written and oral expression, as well as the specific issue of cognitive academic language in these two forms.

Regarding educational settings, it has been determined that narration taking place within the classroom diverges from spontaneous productions (Flader and Hurrelmann, 1984). This has been studied for oral expression. However, the question remains as to how it is different and in what ways this might impact upon written narrations.

Concerning bilingual narrative skills, all of the studies mentioned concur that there is a transfer between languages at a macro-structural level but not regarding micro-structural issues. This overall cognitive knowledge on narrative skills is available in both languages after a minimum linguistic threshold has been attained and is interchangeable. Micro-level and language-specific proficiency develops, predominantly, in the second language if no continuous educational support of the first language takes place. The first linguistic features to be acquired tend to be temporal and structural markers, while more difficult aspects such as affective and emotional resources, stylistically marked choices and sophisticated uses of discourse functions of elements such as connectors or tense markers only develop later.

Furthermore, research has shown that there is a loss in first-language proficiency over time, resulting mostly in a reduction of vocabulary (particularly expressive lexical forms). The absence of focused and continuous first language endorsement at school causes cognitive academic language skills to atrophy.

In sum, school narration is a familiar and everyday form, containing languagecomprehensive features which allow for a certain pre-knowledge on behalf of bilingual speakers with first narrative skills in their L1. Knowledge deriving from everyday narrative interactions in this language can thus be used for school purposes to differentiate between everyday, mostly oral, narrations, and the predominantly written narrative texts that are required in school. Furthermore, narration can build an appropriate framework for the introduction to preliminary academic language skills, as well as literary forms, and is ideal for both oral as well as written exercises. In addition it can also be used in a variety of learning situations, such as for individual work or group activities and is thus flexible in its didactical application.

However, it is not yet clear how the narrative skills of bilingual students develop when there is continuous first-language support over a six-year period using a bilingual educational model? How do macro- and micro-structural narrative elements relate? Are these bilinguals able to confer an emotional and expressive character upon their productions? These are some of the questions that this study aims to answer.

## IX. Development of bilingual narrative competence

In order to evaluate the students' narrative production competence in general and their development regarding the use of academic language in particular, a written tool was developed and applied in both German and Portuguese. Due to its extension and complexity, the samples were collected in the forms of textual production (at the end of Grade 5), dictations (at the beginning of Grade 6) and oral production (at the end of Grade 6).

For the purpose of comparison, both written and oral tools ${ }^{144}$ were also applied to the group of bilingual students attending submersion classes and to the group of monolingual students in Portugal. This chapter presents the aims of the test, methodology used and results.

## 1. Description and application of the tool

As with the assessment of the bilingual schools in Hamburg (Gogolin, Neumann and Roth, 2003a; Roth, Neumann and Gogolin, 2007), this research made use of a tool that was based upon visual stimulus - the Tulpenbeet-tool. As the test is supposed to assess the students' narrative proficiency, the prompts consist of a series of pictures which together form a small story. However, one of the pictures in the original sequence was replaced by a question mark, so that students would have to imagine what might have happened and speculate freely on it. It was hoped that this feature might increase students' narrative freedom, thus reducing the amount of prompt-specific vocabulary produced. The pictures are given in Figure 15.


Figure 15 - Visual prompt used in the Tulpenbeet-tool.
This sequence of pictures was applied in both languages in written form and was therefore accompanied by the following instructions in German and Portuguese:

- Schau Dir die Bildfolge an und erzähle eine Geschichte dazu! Dabei soll zu jedem Bild etwas geschrieben werden. Bei dem Fragezeichen ist ein Bild verloren gegangen. Schreibe auch hierzu, was nach deiner Meinung passiert ist!

[^74]- Depois de observares a sequência de picturens, escreve a história. Deves escrever algo sobre cada uma das picturens. Onde está o ponto de interrogação falta uma imagem. Escreve o que, na tua opinião, se passou. ${ }^{145}$

The textual production was collected at the end of Grade 5. At the beginning of the sixth grade, the same sequence of pictures was applied again in the form of a dictation; the students had to orally dictate the story in the two languages to a native speaker who would write it down. Then they would read it aloud in order to change, correct and/or add whatever they thought was needed. At the end of this same grade, the students in the bilingual class were asked to narrate the same story orally in both languages.

Both texts and oral productions were also applied to the control groups at the end of the sixth grade. The bilingual students in the submersion classes in Hamburg performed this task in both languages while the monolingual group in Portugal used only Portuguese, for obvious reasons.

### 1.1 Main aims of the test

The application of this tool had the following purposes:

- identification and characterization of the bilingual narrative features used by the students;
- assessment of the development of narrative competence;
- analysis of the links between oral and written production with regard to the narrative competence of the students (through the data obtained with the dictations);
- detection of possible interference between and within languages;
- classification of the linguistic features typical of cognitive academic discourse and their relations to other linguistic characteristics;
- evaluation of the dual language programme at the Rudolf Ross School through the comparison of the results with those of the other two groups;
- explain the results in the light of the four external variables used to validate them:
i. socioeconomic status and educational attainment level of the families;
ii. the students' cognitive skills;
iii. classroom setting in the bilingual class;
iv. general educational standard, measured through reading comprehension.

[^75]
### 1.2 Description of the sample, data collection and processing

The Tulpenbeet data consist of written texts, dictations and oral productions based on a visual prompt as described above, in both Portuguese and German, except in the case of the monolingual Portuguese students. The written texts from the students in the dual language bilingual class were collected in June 2005 at the Rudolf Ross School first in German and, two hours later, in Portuguese. This resulted in:

- Portuguese texts: 25 (fifteen boys and ten girls);
- German texts: $23^{146}$ (fourteen boys and nine girls).

The written texts of the bilingual students learning in submersion classes were collected in June 2006 at the Portuguese "Katholische Schule Dohrnweg", where Portuguese classes are held during the afternoons:

- Portuguese texts: 15 (eight boys und seven girls);
- German texts: 15 (eight boys and seven girls).

The written texts of the monolingual Portuguese students were collected in May 2006 at the "Escola de Vila do Conde":

- Portuguese texts: 15 (six boys and nine girls).

The dictations were collected between December 2005 and January 2006. For each language, this resulted in 25 productions, from 15 boys and 10 girls.

During the months of May and June 2006, the oral productions were collected for all three groups in the sample and in both languages, so that there are:

- Portuguese oral productions: 55 (29 boys and 26 girls)
- German oral productions: 40 ( 22 boys and 18 girls).

For a complete overview of the data collected, see Table 15.
Table 15 - Overview of collected Tulpenbeet productions.

| Language | Form | Bilingual in <br> biling. class | Bilingual <br> submersion | Monolingual <br> Portuguese |
| :--- | :--- | :---: | :---: | :---: |
| Portuguese | Texts | 25 | 15 | 15 |
|  | Dictations | 25 |  |  |
|  | Oral | 25 | 15 | 15 |
| German | Texts | 23 | 15 |  |
|  | Dictations | 25 |  |  |
|  | Oral | 25 | 15 | 30 |
| Group totals | $\mathbf{2 3 8}$ |  |  |  |
| Total |  |  |  |  |

[^76]As to the data processing, both texts and dictations were transcribed into text documents and reviewed by two native speakers of each of the languages. The oral productions, recorded on mini-discs, were stored using an audio editor and transcribed by native speakers, following the rules used during the scientific evaluation of the Hamburg bilingual schools (Gogolin, Neumann and Roth, 2003a).

## 2. Data analysis

The data yielded by the Tulpenbeet-tool was analysed in accordance with a triangular design. This was based on the work conducted by Knapp (1997) and Roth (2003), which was adapted and expanded in order to include additional dimensions introduced by the present study. These were:

- the two languages and their relations to each other;
- the three groups and their performance in both of these languages;
- the questions of academic language and narrative competence;
- the relation between all of these dimensions and the four external factors which may or may not validate them.

A more systematic view of the test design is given in Figure 16.

## Cognitive academic language:

Specific linguistic features

Narrative competence:
Extension and complexity Cognition and literality Cohesion Lexical range Proficiency and level

## Bilingual Language Proficiency:

Socio-economic status and educational
 level of the families Cognitive skills of the students Didactic setting in the bilingual class Reading-comprehension

Common underlying proficiency:
Intra-linguistic (text / dictation / oral productions)
Inter-linguistic (German / Portuguese)
Figure 16 - Triangular design applied for the analysis of the Tulpenbeet data (based on Roth, 2003).

### 2.1 Narrative competence

One side of the diagram refers to narrative competence. For its assessment, five different categories were established and analysed for all productions. These are explained below and illustrated with examples from the current study. As mentioned before, the language groups in the Hamburg bilingual classes are:

- Group A - monolingual German students:
- Group B - monolingual Portuguese students (at the time of entry into the educational institution);
- Group C - bilingual students with German and another language not included in the programme;
- Group D - bilingual students with the language combinations included in the programme (German and Italian, Portuguese, Spanish or Turkish).


## Extension and complexity

In accordance with Bishop and Adams (1990), the extension and complexity of the texts were determined through the Mean Length of Sentence (MLS) and text length, which are two global measures of linguistic proficiency used particularly in child language development. The text length was determined in a similar way to that used during the evaluation of the bilingual primary schools. According to Gogolin, Neumann and Roth:

Firstly, the words were counted and the texts broken up into textual (sentence-shaped) units to calculate their MLS (mean length of sentence). The average word count per sentenceshaped unit is considered a global measure of the complexity of the texts. ${ }^{147}$ (2004: 27)

This procedure did not aim to assess individual performances but, instead, to create a framework in which to place the different productions and compare the group performances with each other. It thus provided a preliminary overview of the data collected as regards their extension and complexity. However, this was not done for the oral productions as some of what was said by the students was a direct response to the interviewers' questions and thus not spontaneous speaking. For oral samples, the measure used is the Mean Length of Utterance. This is:
... a method widely used in language acquisition research to determine linguistic complexity; it is applied here to the textual units that are sentence shaped (MLS). As textual units were considered sentence-shaped statements with and - in some (rare) cases - without ver-

[^77]bal components, sentence structures with subordinating conjunctions counted as one unit, while lined-up main clauses were counted as separate units. ${ }^{148}$ (Ibidem)

However, after applying this method to a number of oral productions in both languages, it became apparent that the results could not be compared to those of the written data and the analysis was thus abandoned.

These two general categories provide a preliminary overview of the productions, thus establishing initial differences between individual performances. These are exemplified below by two productions from the collected corpus. ${ }^{149}$

Es waren einmal zwei kinder, sie haben im Park in einem Spielplatz gespielt dann hat die Mutter gesagt "kommt kinder, wir müssen gehen" dann hat die Mutter gesagt "ich muss mal auf klo ich komm gleich wieder, setzt euch auf die bank und wartet auf mich." Auf einmal kam ein Photograf und sagte auch "setzt euch bitte auf die bank. Ich will ein pfoto von euch machen." Die kinder setzten sich hin aber er konnte kein richtiger bild machen, er ging immer weiter nach hinter hier stolperte und Hinfiel das Mädchen stand auf und machte ein pfoto von dem Pfotograf und als das Bild fertig war lachten sie als erstes weil sie sich an den Vorfall was passiert war dann hängten das Bild an eine Pinwand.
[Once upon a time there were two children, they played in the park in a playground then the mother said "come children, we must go" then the mother said "I must go to the toilet I'll be back soon, sit on the bench and wait for me. "Suddenly there came a photographer and said also "please sit down on the bench. I want to take a photo from you". The children sat down but he could not take the picture properly, he kept going backwards here he tripped and fell down the little girl got up and took a photo of the photographer and when the picture was ready they laughed first because they remembered the incident that had happened then they hung the picture on a pin board.]

Tobias, Text (Group D)
Text length: 127 words
MLS: 6,7

## Nur die harten kommen in den Garten

Eines Tages beschloss Vater Egon einen Ausflug zu machen: "So Kinder" brummte Er: "Ich habe beschlossen einen Ausflug mit euch zu machen." Da rauf antworteten die Kinde: "O ja Papi wann den wann soll es los gehen". gleich zieht euch an wir gehen los. Hach ja ich bin der arzele ich werde Manch mal in die gechite rein Plapern aber es wird nicht nerven.

148 „Der MLU-Wert (mean length of utterance) ist eine verbreitete Methode in der Spracherwerbsforschung, sprachliche Komplexität auszuweisen; dieser wird hier auf die textuellen satzförmigen Einheiten angewendet (MLS). Als textuelle Einheiten wurden satzförmige Äußerungen mit und - in einigen (selten vorkommenden) Fällen - ohne verbale Bestandteile gezählt; Satzgefüge mit unterordnenden Konjunktionen zählen als eine Einheit; gereihte Hauptsätze werden als getrennte Einheiten gezählt."
149 The textual productions of the students are reproduced exactly as written and no aspect of the content or spelling has been altered or added. All proper names have been changed. English translations are as literal as possible, although it is of course impossible to capture language-specific features.

Als sie am Volkerspark ankamen zeigte der Vater auf eine Purpur rote Bank: "so" sagte er: "ihr werdet euch jetzt da hin setzen," aber die Kinder waren verschwunden: "Ha wo seit ihr er tat so als hörte und sah er sie nicht. Ein gekicher kam aus einem Blumenbett!"
"Tomi und Lisa wo seit ihr": sagte er Lestig.
Als er am gebusch an kam tat er so als würde er gucken wo sie weren aber er wollte nur den angrief vor bereiten und plötzlich Buh schrei er und die Kinder schrien laut: Haaaaaaa!
Plötzlich lachte der Vater. Als die Kinder am Gehbusch heraus kamen gingen sie zur Pur Pur roten Bank und sagte: Nun will ich ein Foto machen setzt euch da hin die Kinder gingen zur Bank und setzten sich hin. Der Vater fotografiert fast sechs stunden als der Vater zurückging sah er nich das hinter in das Blumenbeet war er lief dereck warten sie mal der die geschte gerade lesen will jetz kommt mein lieblings Spruch Lauf nie in das offene Messe oder noch einen sei nie okay okay. Ich erzahle weiter also wo waren wir stehen geblieben hach ja. Als er das letzte mal ein Foto machen wollte viel er direkte ins Blumenbeet hinin un die Foto kamen fiel in die Hande des Mädchen sie machte sofort ein Foto aber als der weichter das sah liefen sie so schnell es ging der Wächter merkerte: geh hin wo das Pfer wachst: sie liefen, derregt in den Fotoladen. Hier bitte sagten sie gleich seitig nach einen Tag hatten sie die Fotos als sie dass Foto sahen Lachten sie und Lachten den ganzen Nachmittag und gaben den Foto einen Ehren platz am Kamin.
[One day father Egon decided to go on a trip: "So children" He hummed:" " have decided to go on a trip with you." The children answered: "O daddy when then when are leaving." Immediately? get dressed and off we go. Oh I am the narrator I will some sometimes interrupt the story, however, it will not bother you.
When they arrived at the Volkerspark the father pointed at a bright red bench: "So" he said: "now you will sit down there" but the children had disappeared: "Ha where are you?" He acted as though he didn't hear or see them. Giggles came from a flower bed!
"Tomi and Lisa where are you?" he said annoyed.
When he in arrived at a bush he pretended to look for them, however, he only wanted to prepare the attack ready and suddenly boo he shouted and the children shouted loudly: Haaaaaaa!
Suddenly the father laughed. As the children came out of the bush they went to the bright red bench and said: Now I want to take a photo of you sit down there the children went to the bench and sat down. Their father took photos for nearly six hours as the father went back he didn't see that behind him there was a flowerbed he ran direct wait a minute you who just wants to read the story now my favourite saying comes never run to the open knife or one more is never okay okay. I will go on telling where we had stopped oh. When he wanted to take again a photo he fell direct into the flowerbed and the camera fell into the hands of the girl, she took immediately a photo but as the guard saw this they ran as fast they could the guard complained: go where the pepper grows: they ran, direct into the photo store. Here please they said at the same time after one day they had the photos as they saw that photo they laughed and laughed the whole afternoon and gave the photo a place of honour on top of the chimney.]

Leonardo, Text (Group A)
Text length: 350 words
MLS: 6,6
These texts represent two different levels of narrative performance, which will be differentiated in a more detailed manner through further categories in the analysis. Nonetheless, the sheer quantitative difference between them becomes apparent just by looking at their length and MLS; for, while the length of the texts is extremely different between the productions, their MLS is almost the same, indicating that the
distribution of words within the sentences was conducted in a comparable way. However, Leonardo has used much more direct speech, which means that he has divided the text into small fragments - such as "So Kinder" or "O ja Papi" - while also using subordinate clauses, mostly temporal, to establish relations between the events - such as "Als sie am Volkerspark ankamen zeigte der Vater auf eine Purpur rote Bank" or "er tat so als hörte und sah er sie nicht."

In other cases, however, these two general measures could not contribute, quantitatively or qualitatively, to a distinction between two clearly very different productions. Below are two of these examples. Francisco had been attending the bilingual class for five years at the time of data collection and was born in Germany. Lara had arrived in Germany eight months before and was put in the bilingual class. Prior to this, she had lived in Portugal for a few years with her mother, although she was originally from Angola, having spent her childhood there with her grandmother. Consequently, she was bilingual (Portuguese - Angolan Creole) before she even immigrated with her mother to Germany. At the time of data collection she had been in Germany for a little under one year and in the bilingual class for three months.

## Ins Blumenbeet geschubst

Einmal war eine Familie im Park spazieren.
Der Vater hatte eine Kammera und wollte sein Kind und seine Frau Fotografieren.
Seine Frau ist aber vor dem Foto aufgestanden, hatte die Kammera genommen und ihren Mann in Blumenbett geschubst. Sie hatte nur Spaß gemacht. Sie wusste aber nicht das sie ihm getötet hatte. Sie machte ein Foto. Sie hatte alles versucht damit er wieder lebt. Jetzt ist sie im Gefängnis und hat ein Voto gemacht.
[Once a family was walking in the park.
The father had a camera and wanted to photograph his children and wife.
However, his wife got up before the photo, took the camera and pushed her husband into a flowerbed. She only wanted to play a joke. However, she did not know that she had killed him. She took a photo. She had tried everything so that he would live again. Now she is in prison and has taken a photo.]

Francisco, Text (Group D)
Text length: 74 words
MLS: 7,4

## Der fotografe

Es wa ein mal zwei Kinder und eine mam.
Deses man heiße Andonio e de zwei kinder heißeren Mari un Nicci sie farten aine foto maren.
Der Mam saquede só den baiden Kinder si ztelen sis setze.
Die baide Kinder crabe quesetze. Und de fotografe rade aine foto quemarde und der mãe rade nar fia foto quemarte rade.
Und die Kinder vaiten meite im Spiel lloz rade de fotoaparade que hebem eim er rade meia que conte um stalperm er und de Kinder haben eine foto gemachte.
[Once upon a time there were two children and a man.
This man was called Andonio and the two children were called Mari and Nicci they wanted to take a photo.
The man told the two children to sit down.
The two children sat down. And the photographer took one photo and the mother also took more photos.
And the children wanted to make a game and took the camera he had tripped and the children took a photo.]

Lara, Text (Group B)
Text length: 87 words
MLS: 7
As we can see, the texts are very similar as regards length and MLS, with Lara's scoring slightly higher in both measures. Yet, qualitatively, both productions are very different from each other, and it is very hard to understand some of the parts in Lara's text even for a German-Portuguese bilingual. On the other hand, both texts have a title and start with a similar narrative formula, which indicates that both children know they are dealing with a literary text, although their choice was rather naïve for the fifth grade. Both refer to all of the pictures in the visual prompt and manage to accomplish the task of narrating all events in the short story. Furthermore, Lara named her characters and even used reported speech. In order to address all of these differences, more categories were developed and applied to the productions.

## Cognition and "literariness"

For this analysis, the relationship between a macro-level of cognitive processes involved in narrating a story and its degree of "literariness" is established through the following four items:

## i. Task accomplishment

The way in which a student deals with the story in the Tulpenbeet pictures and narrates it allows a general judgment to be made about his or her cognitive skills when coping with literary textual forms. In the case of bilingual children, it even allows a direct comparison between the languages. The idea is that a linguistic system does not only include knowledge related to specific linguistic forms, but that it is actually more dependent on the way in which this knowledge is cognitively used. This notion was developed by the Romanian linguist Coseriu (1981; 1988) under the name of "general linguistic proficiency" (Allgemeine Sprachkompetenz) and has been further adopted by Reich and Roth (2002) for their development of linguistic tools such as "Katze und Vogel" for HAVAS. Task accomplishment was defined by these authors in their report on the HAVAS-tool as follows:

Task accomplishment is a basic measure. It should assess the extent to which the child is able to solve the task of linguistic reproducing the chosen pictures so that the contents of those pictures are communicated (i.e. become comprehensible) to a listener. This measure takes into consideration that, as a rule, language is understood not as an end in itself, but is integrated into communication and action contexts, and it is relatively close to pedagogical thinking. ${ }^{150}$ (2002: 18f)

The inclusion and importance of such an analytical category has thus been asserted and validated in the research conducted by Reich and Roth with five-year-olds in Hamburg. The same concept of task accomplishment has been used in this study.

The understanding and negotiation of linguistic tasks is an essential performance which is ever present in a school setting. Thus, with this category, the individual scenes depicted in the pictures were listed and points were attributed to the degree of completeness with which the students accomplished their narration. One point was given when the scene was suggested but not really mentioned or explored; two points were attributed to incomplete answers, where elements, characters or actions were missing; the complete answer received three points and particularly detailed answers, involving more features or actions than those actually featuring in the pictures, scored four. When one of the pictures was not addressed, the students received no points; this data was collected under the category "number of pictures".

Below is a list of the individual pictures and the events portrayed in each one:
Picture 1: The man with the camera asks the children to sit on the bank;
Picture 2: The man takes a picture (or tries to) of the children sitting on the bench;
Picture $3^{151}$ : The man falls into the flower bed and drops his camera;
Picture 4: The girl takes a picture of the man lying in the flower bed;
Picture 5: They look at the photo of the man.
This point system has been successfully tested for several other language diagnostic tools and is considered to be a reliable measure of narrative achievement. In order to exemplify what is meant by the different categories and their degree of completeness, the list of the Tulpenbeet analysis booklet is displayed in Table 16 and includes examples in both German and Portuguese.

[^78]Table 16 - Examples of point attribution in the category of task accomplishment (based on Gantefort and Roth, 2008)

| Depiction of the scene |  | Assessment |  |  |  |  | points |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | not mentioned | suggested | incomplete | com- <br> plete | detailed |  |
|  | Der Vater will die Kinder fotografieren. <br> [The father wants to photograph the children.] | 0 | 1 | 2 | 3 | 4 | 1 |
|  | O pai pede aos filhos para se sentarem. [The father asks the children to sit down.] | 0 | 1 | 2 | 3 | 4 | 2 |
| 1 | O senhor pediu que elas se sentassem no banco. [The man asked them to sit down on the bench.] | 0 | 1 | 2 | 3 | 4 | 3 |
|  | Weil es so ein herrlicher Tag war, sagte der Vater: "Kommt, Kinder, setzt euch mal auf die Bank, damit ich ein Foto von euch machen kann" <br> [As it was such a beautiful day, the father said: "Come on, children, sit down on the bench, so that I can take a photo of you"] | 0 | 1 | 2 | 3 | 4 | 4 |
| 2 | As crianças sentam-se. <br> [The children sit down.] | 0 | 1 | 2 | 3 | 4 | 1 |
|  | Die Kinder haben sich auf die Bank hingesetzt. [The children sat down on the bench.] | 0 | 1 | 2 | 3 | 4 | 2 |
|  | O Xavier preparou-se para tirar a fotografia dos dois. <br> [Xavier got ready to take a photo of them both.] | 0 | 1 | 2 | 3 | 4 | 3 |
|  | Die Kinder setzten sich natürlich auf die Bank. Dann machte der Vater ein wunderschönes Foto. [The children sat naturally on the bench. Then the father took a beautiful photo.] | 0 | 1 | 2 | 3 | 4 | 4 |
| 3 | O pai foi um bocadinho para trás. [The father went back a bit.] | 0 | 1 | 2 | 3 | 4 | 1 |
|  | Die Kinder haben den Vater im Beet reinbeschubst. <br> [The children pushed the father into the bed.] | 0 | 1 | 2 | 3 | 4 | 2 |
|  | Ao ir para trás e cai nas flores. A Francine pega na máquina de tirar fotografias. <br> [While going back, he falls into the flowers. <br> Francine takes the photo camera.] | 0 | 1 | 2 | 3 | 4 | 3 |
|  | Dann passierte es: Alex schupste Herr Teiha in die schönen Blumen. Jana hatte den Fotoapparat genommen. <br> [Then it happens: Alex pushed Mr. Teiha into the pretty flowers. Jana picked up the camera.] | 0 | 1 | 2 | 3 | 4 | 4 |


| 4 | Eles tiraram uma foto. <br> [They took a photo.] | 0 | 1 | 2 | 3 | 4 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Die zwei Kinder machen ein Foto von dem Fater. <br> [The two children took a photo of their father.] | 0 | 1 | 2 | 3 | 4 | 2 |
|  | Os filhos levantaram-se e fizeram uma foto onde o pai estava em cima das flores. <br> [The children stood up and took a photo where their father was on top of the flowers.] | 0 | 1 | 2 | 3 | 4 | 3 |
|  | Dann nahm das Mädchen den Fotoapparat, um ihren Vater zu fotografieren. Und der Mann gibt ein schönes Lächeln und es war ein schönes Foto. Der Mann schreite "AAAA". Von der Mann die Kinder lachten sich kaputt. <br> [Then the girl picked up the camera, to take a photo of her father. And the man gives a nice smile and it was a beautiful photo. The man screamed " $A A A$ ". The children laughed a lot about the man.] | 0 | 1 | 2 <br>  <br>  <br>  <br>  | 3 <br>  <br>  <br>  <br>  | 4 | 4 |
| 5 | Und danach kam ein buntes Foto raus. [And then a colorful photo came out.] | 0 | 1 | 2 | 3 | 4 | 1 |
|  | Essa fotografia ficou uma recordação. [This photo was then a souvenir.] | 0 | 1 | 2 | 3 | 4 | 2 |
|  | Dann sind sie nach Hause gegangen und haben das Foto denn Eltern noch gezeigt. <br> [Then they went home and still showed their parents the photo.] | 0 | 1 | 2 | 3 | 4 | 3 |
|  | A Mãe comesou-se a rir e disse vamos pendurar a foto na sala para lembrança e depois o pai foi outra vês ao parque tirar fotos mas olhou para trás. [Their mother started to laugh and said let's hang the photo in the living room as a souvenir and then their father went again to the park to take photos but looked behind him.] | 0 | 1 | 2 | 3 | 4 | 4 |

It was hoped that the totals achieved might function as a measure for the students' cognitive involvement while solving the task. According to Gantefort and Roth:

Task accomplishment is a global measure of the written results of the task of producing a narrative text. Its purpose is to indicate the extent to which the students succeed in expressing the processes, actors, objects and connections shown in the picture sequence in the written form of the respective language. As the evaluation (...) is not dependent on single linguistic structures (syntax, lexis, morphology), it is possible to directly compare the values achieved in German and the home language. ${ }^{152}$ (2008: 31)

152 "Die Aufgabenbewältigung ist ein globales Maß für die schriftliche Lösung der gestellten Aufgabe, einen Erzähltext zu produzieren. Es wird erfasst, inwiefern es den Schülerinnen und Schülern ge-

## To exemplify what is meant by task accomplishment, below are two texts from the Corpus.

Der Mann bei den Blumen

Es war einmal ein Mann er sagte zu seinen Kinder: Setzt euch mal da hin. Er ging immer weiter und weiter zurück. Plötzlich stolperte der Vater von den Kindern. Der Vater fiel auf die Blumen. Und die Tochter schnappte sich die Kamera und Fotografierte ihren Vater.
Aus der Kamera kam das Bild und der Vater war bei den Blumen gelandet.
[Once upon a time a man said to his children: sit down over there. He kept going backwards. Suddenly the father of the children tripped. The father fell on the flowers and the daughter grabbed the camera and photographed her father. The photo came out of the camera and the father landed on the flowers.]

Alex, Text (Group D)
Picturel :3 points
Picture 2: 0 points
Picture 3: 2 points
Picture 4: 3 points

Task accomplishment: 10 points

## Mark der Fotograf

Mark ist ein ausgebildeter Fotograf. Für seine Fotos geht er an verschiedene orte, heute in den Park.
Er hat dort sehr viele interessante sachen gefunden, bäume, blumen, wiesen, häuser, tiere alles ausser Kinder, in seinen gedanken kam nur eine sache vor, „das ist ein park, warum finde ich nach einer stunde suchen keine kinder. Auf einmal hörte er lachen er dachte es sind kinder, er dehte sich um, doch es waren frauen die lesterten.
Mark wollte gerade aufgeben als er kinderstimmen hörte, als er sich umkuckte und den Spielplatz sah kam er sich sehr blöd for. Wieso hat er 3 std. im park nach kindern gesucht, warum hat er nicht sofort dort gesucht, dort gab es so viele kinder das er sich kaum endscheiden konnte wer er frangen will.
Dan sah er zwei kinder sie waren perfekt, ein mädchen und ein Junge, er fragte: "Habt ihr was dagegen wenn ich ein foto mache?" darauf das Mädchen: "Ja das macht mir nichts aus, wissen sie ich will Model werden". Darauf richteten sie sich auf, der Mark fand es besser wenn auch ein teil der Natur auf das Bild kommt, er ging immer weiter nach hinten bis PLUMS er in ein blumenbet fiel. Das Mädchen fing die Kammera und machte ein Foto.
Als der Mark die Fotos zu hause entwickelt hat merkte er das Foto und fing an zu lachen.
[Mark is a qualified photographer. For his photos he goes to different places, today to the park. He has found there a lot of interesting things, trees, flowers, lawns, houses, animals everything except children, his thoughts were dominated by one thing, "this is a park, why can't I find children after one hour of looking. All at once he heard laughter and thought it is children, he turned around, however, it was women who were cursing.
Mark wanted to give up just as he heard children's voices when he turned he saw a playground and felt very silly. Why had he looked for children 3 hours in park, why hadn't he looked imme-
lingt, die in der Bildsequenz dargestellten Vorgänge, Aktanten, Gegenstände und Zusammenhänge in der jeweiligen Sprache zu verschriftlichen. Da die Auswertung (...) nicht in Abhängigkeit von einzelsprachlichen Strukturen (Syntax, Lexik, Morphologie) erfolgt, ist es möglich, die im Deutschen und der Herkunftssprache erreichten Werte direkt miteinander zu vergleichen."
diately there, there were so many children he could barely decide who he wanted to address. Then he saw two children they were perfect, a girl and a boy, he asked: "Do you have a problem if I take a photo?" And the girl: "Yes this is not a problem, you know I want to become a model".
Then they stood up, Mark found it better if one part of the nature was on the picture, he went on and on to the back until SPLAT he fell into a flower bed. The girl picked up the camera and took a photo. As Mark developed the photos at home he noticed the photo and started to laugh.]

Larissa, Text (Group D)
Picture 1: 4 points
Picture 2: 3 points
Picture 3: 3 points
Picture 4: 2 points
Picture 5: 4 points
Task accomplishment: 16 points
As we can see, Alex mentions all but the second given picture and even describes what happened in the missing part of the sequence. However, he does it in a somewhat vague and superficial manner, not really exploring contexts, characters, time or space. On the other hand, Larissa constructs a very complete contextual embedment for the whole story and explores almost each of the given pictures quite thoroughly. She also supplies some explanation for the photographer's fall (though not in a detailed way), and gives the reaction of the viewer when seeing the photo.

## ii. Literary features

In her research into the early texts produced by primary students, Dehn (1999) tried to find features of literary creativity. Her results led to the recognition of the category of "literariness" as an independent sign of textual competence. Her findings report that some features used for purposes of textual organization work as isolated categories in the evaluation of textual competence. This was further developed by Roth (2003) for the case of bilingual children. In this study, the choice of features was reduced and adapted for older students and includes four sub-categories:

- shaping of the beginning of the text: this assesses whether the students have attributed a title to the story (one point), started it with a literary formula like "once upon a time" or "one day" (two points) or established a detailed context (three points);
- shaping of the end of the text: this assesses whether the students have finished their text with the word "end" (one point), with a literary formula like "and they lived happily ever after" (two points) or established a detailed context (three points);
- use of direct speech between the characters: dialogue frequency is counted;
- name attribution to the characters; the frequency is taken into consideration as well as the character to which the name is attributed (man, children, woman, family);

Two different productions are again used as examples below. The parts in bold are the literary features and will be referred to after the text.

## Der Spaziergang

Es war einmal eine Familie die ein Spaziergang machen wollte und eine Kamera dabei hatte.
Der Vater sagte zu Romeo und Julia "setzt euch auf bank damit ich ein foto machen kann." "so, seit ihr bereit damit ich ein foto mache uahhh. Er fiel auf den flanzen die im kasten waren und sagte 'aus'."
Die kamera war fast dabei auf den Boden zu landen und Julia fing die kamera und sagte "Ein perfektes ort um ein foto zu machen."
Und Julia haltette die kamera in der hand und schießte ein foto von dem Vater auf den pflanzen. Weil sie die fotos gemacht hatte, hatte sie die fotos aufgehengt, und damit war das spaziergang ein spass, und so endet die geschichte.
[There was once a family that wanted to go for a walk and took a camera.
The father said to Romeo and Julia "sit down on the bench so that I can take a photo.
"so, are you ready to take the photo uahh. He fell on the plants that were in a box and said 'it's over'.
The camera was almost landing on the ground and Julia caught the camera and said "a perfect place to take a photo."
And Julia held the camera in her hand and took a photo of her father. Because she had taken photos, she hung them up, and with the walk was great fun, and thus ends this story.]

Héctor, Text (Group D)
Beginning: 3 points
End: 3 points
Direct speech: 4 times
Name attribution: two children

Der Vater von Larissa und marvin will ein Foto von den beiden machen. Er schickt die zwei auf die Bank, als er zurück geht fällt er in das Blumenbed. Larissa fängt an zu lachen greift sich die Kamera und schiest ein Foto. Das Foto ist sehr hüpsch geworden.
[Larissa and Marvin's father wants to take a photo of them both. He sends them to the bench when he goes back he falls into the flowerbed. Larissa starts to laugh, picks up the camera and takes a photo. The photo is very pretty.]

Raquel, Text (Group D)
Beginning: 0 points
End: 0 points
Direct speech: 0 times
Name attribution: two children
It can be seen that Héctor's text has both a formal contextualized beginning and end. Furthermore, the characters have names (indeed an intertextual background) and there is the use of direct speech, which, according to Boueke and Schülein (1995), contributes to a sort of psychological closeness in relation to the created
characters. Raquel's text on the other hand, has no clear beginning, includes no dialogues and displays a fragmentary narrative style.

## iii. Motives behind the characters' actions

The degree to which a text offers motives for the actions of its characters provides a strong statement about its quality. When a text indicates motives, it normally includes a higher number of subordinated clauses and is more involved. In this category, the various scenes were listed and a so-called "exposition" was added to include the initial context established by some students. Then, the different characters were also included and the frequency of the motives behind the action of each of them was added up.

The following two passages show differences in the degree of motivation attributed to the taking of the photograph.

> Da sahen sie eine Bank die volle Blumen und Graß war und der Vater fand es deshalb schön und wollte ein erinerungs Foto machen.
> [There they saw a bench which was full of flowers and grass and the father found it nice because of that and wanted to take a souvenir photo.]

> Lúcio, Text (Group A)

Es war Einmal ein Mann der ging mit seinen Kindern in den Park der Vater sagte: "Setzt euch
auf die Bank ich mach ein Foto von euch."
[Once upon a time there was a man who went with his children to the park the father said: "sit
down on the bench I'll take a photo of you."]
Sabine, Text (Group D)
In Lúcio's text the reason for taking the photo is specified through two linguistic markers: "deshalb", used to justify the beauty of the place where the photograph was going to be taken, and the modal verb construction "wollte (...) machen", which offers a second reason for taking the photo. In contrast to this detailed narration, Sabine provides absolutely no reason for the taking of the photo; it is not justified as an impulse on the part of one of the characters or as due to external factors.

## iv. Specification as regards the explanation of the missing scene

This category deals specifically with the scene covered by the question mark and the way the students cope with it. It is divided into two sub-items: the explanation given for the man's fall and reference to the children's actions. Points were attributed, as before, according to the degree of completeness of the narration; when it was implicit one point, explicit two and detailed three.

Again, two passages serve to illustrate the responses made:
> (...) Os dois sentaram-se no banco mas quando o Papa queria fazer a foto ele reparou que os dois não cabiam dentro da foto por isso ele tentou ir um bocado para trás, mas ele reparou que não dava, porque se ele fosse mais um passo para trás ele caia no canteiro. E assim ele tentou empurar o banco mas não conseguio. Por isso ele quis entrar no canteiro, mas quando ele so precisava de mais um passo apareceu um cão que correu pelas pernas dele, e assim tinha de vir como veu ele perdeu o equilibrio, deu contra a vedação e caiu no canteiro. (...)
> [They sat down on the bench but when the father wanted to take the photo he noticed that they were not fitting inside the photo therefore he tried to go a bit backwards, but he didn't notice that it didn't work, because if he went one more step backwards he would fall in the flowerbed. And so he tried to push the bench but didn't succeed. Therefore he wanted to go inside the flowerbed, but when he just needed one more step a dog appeared and ran for his legs, and so it come like it had to he lost his balance, he went against the fence and fell in the flowerbed.]

Miguel (Group D)
Eles as crianças sentarão no banco e o papa da sarafina fez un Foto e depois ele caio nas Flores. [They the children sat in the bench and Sarafina's father took one photo and then he fell into the flowers.]

> Sérgio (Group B)

Miguel's text offers a complex network of causal constructions ("porque") and conclusive sentence connectors ("por isso") which linguistically demonstrates the high degree of motivation behind each of the man's actions until he finally falls into the flower bed. Sérgio's explanation of the man's fall is totally unmotivated, thus conveying a loose decontextualized outline. Accordingly, indicating motives is a way of demonstrating textual competence and providing the texts with a causal link.

## Cohesion

According to Singh, "Cohesion is defined as the property that distinguishes a sequence of sentences that form a discourse from a random sequence of sentences" (1979: 69). Cohesion has been defined in a number of ways. Widdowson (1993) defined it in terms of the distinction that is made between the illocutionary act and the proposition. In his view, propositions, when linked together, form a "text" whereas illocutionary acts, when related to each other, create different kinds of "discourse."

According to Halliday and Hasan, cohesion and register are the features which allow a text to be constructed. Register is concerned with what a text means. It is defined by Halliday and Hasan as the "set of semantic configurations that is typically associated with a particular class of situational context, and defines the substance of the text" (1976: 26). Cohesion, as contrasted with register, is not concerned with what a text means. Rather, it refers to a set of meaning relations that exist within the text. These relations are not of the kind that link the components of a sentence and they differ from sentence structure. Cohesion may involve the semantic relationship that is set up between the features. Thus, for these authors, the function of cohesion is to relate one part of a text to another. Consequently, it lends
continuity to the text. By providing this kind of text continuity, cohesion enables the reader or listener to supply all the components of the picture to its interpretation. For this analysis, the cohesion category includes a quantitative and qualitative analysis of all sentence connectors used by the students, allowing an overview of the degree of cohesion of the different productions, as well as of the semantic relations between isolated text parts. The sentence connectors which were collected comprise several grammatical categories (see Table 17)

Table 17 - Types and examples of collected sentence connectors in both languages.

| Purpose of connector | Type of connector | Connector(s) | Portuguese | German |
| :---: | :---: | :---: | :---: | :---: |
| Addition | Coordinating Conjunction | And, And then | $\begin{gathered} E \\ \text { E depois } \end{gathered}$ | Und Und dann |
|  | Correlative conjunction | Not only ... but also | Não só ... mas também | Nicht nur ... sondern auch |
| Opposition | Coordinating conjunction | But | Mas Só que | Aber <br> Doch |
|  | Adversative conjunction | Or | Ou | Oder |
| Time | Adverbs | That day At that moment Suddenly | Naquele dia Naquele momento De repente | An dem Tag Am nächsten morgen Plötzlich |
|  | Conjunctions | When | Quando | Als <br> Wann |
| Condition | Subordinating conjunctions | If | Se | Wenn |
| Cause / Effect | Subordinating conjunctions | Because <br> So that | Porque <br> Para (que) | Weil / Denn <br> Damit / um zu |
| Clarification | Adverbs | More specifically | Mais concretamente | Nämlich |
|  | Subordinating conjunctions | So | Então | Also |
| Comparison | Preposition / Conjunction | Like | Como | Wie |
| Temporal | Subordinating conjunctions | Until | Até | Bis |
| Specification | Subordinating conjunctions | That Which | Que | $\begin{gathered} \hline \text { Der, die, das } \\ \text { Was } \end{gathered}$ |

Apart from collecting all sentence connectors, a distinction between types and tokens was established. In relation to words in a spoken utterance or written text, a count of the tokens represents a count of the total number of words used (regardless of type), whilst a count of the types corresponds to a count of the different words used, ignoring repetitions. Thus, types are word-forms and tokens are occurrences of word-forms. By collecting the different types and tokens of the sentence connectors, an overview of the actual diversity in the texture of the discourse was achieved. Two further examples are given below.

## Rein gefallen

Eines Tages gingen 2 Kinder zu den Wallanlagen. Da hatten sie ein Mann gesehen sie gingen zu ihn und er fragte "kann ich von euch ein Foto machen." Sie sagte: "ja gerne." Sie setzten sich auf die Bank und lächelten zur Kamera dann hatten sie plötzlich ein Idee sie standen auf und rannten zu ihn und sagten guck mal nach da er guckte nach hinten und sie schupsten in ins Gebüsch und hatten die Kamera.
Dann haben sie ein Foto gemach von ihn und er stand wieder auf und sie zeigte ihn das Foto. [One day 2 children went to the Wallanlagen. There they saw a man they went to him and he asked "can I take a photo of you." She said: "with pleasure." They sat down on the bench and smiled at the camera then they suddenly had an idea they got up and ran to him and said look over there he looked to the back and they pushed him into the bushes and they had the camera. Then they took a photo of him and he stood up again and she showed him the photo.]

Artur, Text (Group A)

Types: 5
Tokens: 10
Ben, Hanna und der Fotograf Otto
Otto der Fotograf ging spazieren im Park.
Normalerweise fotografiert er Blumen, Bäume und andere Pflanzen, aber diesmal sah er zwei spielende Kinder. Er dachte: "wäre es nicht toll zwei wunderschöne Kinder zu fotografieren?!" Er ging zu den Kindern hin und fragte erst mal vorsichtshalber: "darf ich euch fotografieren?" Die Kinder gingen schnell nach Hause fragten ihre Mutter und sind dann wieder gekommen und haben zu den Mann gesagt: "Unsere Mutter hat Ja gesagt aber, wir dürfen nicht weit weg gehen, übrigens wir heißen Ben und Hanna!" Otto sagte: "Toll, und es freut mich euch kennen zu lernen und ich heiß Otto!" Sie gingen ein Stück weiter bis eine Bank kam. Dort sagte Otto: "Okay, hier sitzt ihr euch bitte hin." Die Kinder saßen sich dort hin und als Otto ein Stück ging merkte nicht, dass hinter ihm nicht ein Blumenbeet ist fiel er hinein und Ben und Hanna nahm ihm die Kamera weg und fotografierten ihn als er im Blumenbeet war. Sie halfen ihm hoch zu kommen und zeigten ihm das Foto und er fragte die beiden: "Warum habt ihr das getan?" Die Kinder verabschiedeten sich noch von ihm. Sie lachten und antworten: "Weil es lustig war." Sie gingen nach Hause erzählten es ihrer Mutter und die Mutter lachte!
[Otto the photographer went for a walk in the park.
Normally he takes photos of flowers, of trees and other plants, but this time he saw two playing children. He thought: "wouldn't it be nice to take a photo of two beautiful children?!" He went to the children and asked first, as a precaution: "may I take a photo of you?" The children went home quickly and asked their mother and then came again and said to the man: "Our mother has said Yes, however, we may not go far away, by the way, we are Ben and Hanna!" Otto said: "Great, and I am glad to get to know you and my name is Otto!" They went a bit until they reached a bench. There Otto said: "Okay, here you sit down please." The children sat down and as Otto went a bit backwards he did not notice that behind him there was a flowerbed he fell and Ben and Hanna took the camera away from him and took a photo of him as he was in the flowerbed. They helped him up and showed him the photo and he asked them: "Why have you done this?"
The children still said goodbye to him. They laughed and answer: "Because it was funny."
They went home told it to their mother and their mother laughed!]
Lena (Group C)
Types: 9
Tokens: 20

In both texts the most frequent connector is the coordinating conjunction "und." However, Artur only used three other connectors whilst Lena made use of eight others. Hence her text appears syntactically more complex and entwined. In further analysis, the nature of the syntactical pattern for each production, group and language was established.

## Lexical range

This category is lexical in nature, as its purpose is to determine the different uses of vocabulary in the productions. An analysis of lexical items (verbs, nouns and adjectives) should thus give an idea of how differentiated the different productions are. Gantefort and Roth summarize the reasons for the use of these categories in the following manner:

The preliminary investigations showed that - unlike in spoken language - it is not sufficient to merely produce a collection of verbs. Particularly for academic writing and the assessment of the formation of concepts, nominal vocabulary is of high relevance. In addition, the use of specifying adjectives distinguishes a text with deeper lexical range". ${ }^{153}$ (2008: 32)

Hence, for the purpose of the current analysis, the following categories were used:

- verb types and tokens;
- modal verb constructions followed by infinitive ("poder fazer," in Portuguese, or "möchte machen," in German ${ }^{154}$, for example);
- periphrastic constructions ${ }^{155}$ ("começar a rir," in Portuguese, or "anfangen zu lachen" in German ${ }^{156}$, for example);
- verbal tense types;
- adjective types and tokens;
- noun types and tokens.

As seen in the list above, the verbal vocabulary was differentiated and two extra specific items were added. This was done in order to assess the possible role of these two categories for Portuguese academic language, and as in the tools developed during the evaluation of the bilingual primary schools, there was evidence that they might be significant. Thus, this was also tested for the fifth and sixth grades.

[^79]These data were also collected for the German language so that the two languages could be compared.

It was expected that in addition to a high number of lexemes with a more general meaning the students would also produce some specific vocabulary related to a more narrative style. It was thought that those that were less proficient in one of the languages might tend to use jargon and colloquial terminology in order to compensate for their lack of more accurate vocabulary. Such expressions might be, for example, "Dings [that thing]" or "so machen [do like that]," for German, and "a coisa" or "ou assim," in Portuguese. Therefore, such expressions, more characteristic of an oral colloquial register, were also listed under the category of lexis in order to assess their overall meaning in the students' productions.

In order to exemplify the lexical range covered by this category, below are two further examples.

No parce
O pai da francine e do João quer fazer uma fotografia do João e da Francine. Eles sentão-se no banco e o pai faz uma fotografia, mas ao ir para tras ele cai nas flores. A Francine pega da maquina de tirar fotografias e faz uma fotografia.
[Francine and John's father wants to take a photo of John and Francine. They sit down on the bench and the father takes a photo, but while going backwards he falls into the flowers. Francine picks up the camera and takes a photo.]

Raquel, Text (Group D)
Verb types: ..... 6
Verb tokens: 8
Modal verbs: $\quad 1$
Periphrastic: 0
Verbal tense types: 2
Adjectives types: 0Adjectives tokens: 0Nouns types: 6
Nouns tokens: ..... 9

A Queda
Num lindo dia de sol a Helena, o irmão dela o Camilo e o pai Joaquim foram passear ao parque o Joaquim queria fazer uma foto das duas crianças. Ele disse: - Vá crianças sentem-se, por favor. - E assim o fizeram. Ele tirou a fotografia. Quando era a vez da Helena ela disse: - Papá, podes ir um bocado para trás, mais um bocado, só mais quinze passinhos para trás!!! - E dizendo estas palavras o Joaquim caiu para dentro do canteiro de flores que estáva lá. E depois deste dia bonito foram todos contentes para casa.
[On a lovely sunny day Helena, her brother Camilo and father Joaquim walked in the park Joaquim wanted to take a photo of the two children. He said: - Go children sit down, please. - And so they did. He took the photo. When it was Helena's turn she said: - Papa, you can go backwards a bit, just a bit more, only fifteen more steps backwards!!! - And saying these words Joaquim fell into the flowerbed that was there. And after this pretty day they all went happily home.] Fim Ana Daniela, Text (Group B)
Verb types: 11
Verb tokens: 17
Modal verbs: 2
Periphrastic: $\quad 1$

Verbal tense types: 5
Adjectives types: 3
Adjectives tokens: 3
Nouns types: 18
Nouns tokens: 21
Raquel's text makes use of no adjectives or periphrastic constructions. Her verbal and nominal vocabulary is limited and not particularly differentiated. In her whole narration, she predominantly makes use of the present tense. Ana Daniela, on the contrary, uses both adjectives and periphrasis in her story and both her verbal and nominal vocabulary are wide-ranging and differentiated. Additionally, her narration includes five different verbal tenses, predominantly in the past. She is proficient in the verbal particularities of the Portuguese language, particularly concerning the difference between the pretérito perfeito and imperfeito.

## Proficiency and level

The last item in the narrative category refers to narrative proficiency and level. As many of the students in the sample are still undergoing language acquisition in both German and Portuguese, the model created by Boueke and Schülein (described in Chapter 8) was applied to all productions. The primary purpose was to determine the students' level of narrative performance in both languages, giving particular consideration to the second-language learners with limited proficiency in one of the languages. Is narrative competence completely language-specific? Or is it to a certain extent a cognitive skill which can be demonstrated in spite of limited proficiency? And if so, how do the students achieve this?

A second purpose behind the determination of narrative level is related to the development of equivalent categories for the Portuguese students and to validate them for the sample, given that such a model has not yet been developed for this language. The application of this external proficiency instrument was found to be necessary due to the results of the aforementioned study by Gantefort and Roth (the authors comment on the application of the Tulpenbeet visual stimuli within the FöRMIG-Project). For this purpose, the instrument was applied twice within a year to the same group of children in order to assess the progress that had been made after a systematic endorsement programme. However:

[^80][^81]As a result, an analysis of other aspects of the students' productions was undertaken, more specifically of the precise narrative means. This new examination led the authors to conclude:

Although their linguistic representation of the picture sequence was less complete, the students applied specific means of narrative creation in the second wave more often and in a more differentiated way. On the other hand, in this sample, task accomplishment turned out to be a stable indicator only with regard to the diagnosis of entrance level. To sum up, we can therefore speak of an increase in textual competence, even if a motivational habituation effect could apparently be observed. ${ }^{158}$ (Ibidem).

For these reasons, the analysis of the narrative competence level as performed by Boueke and Schülein (1995) and Gantefort and Roth (2008) was also applied to the current sample. The indicators, already mentioned in Chapter 8 and chosen for the analysis, are listed below, together with examples from the students' productions

## i. Event-structural Markers - These are divided into the various features listed and

 exemplified below:- Differentitation of scene-setting - this refers to the introduction given to the text in terms of the setting (time and place) and characters of the narrative. It is thus divided into the following items:
- Introduction of time: this supplies information about when the action takes place, as in the case listed below where Ana Cláudia uses one of the seasons to give an idea of the weather at the time of the walk in the park (highlighted in bold).

Num dia de primavera a Andreia, o Miguel e o seu pai António foram ao parque da sua cidade (...).
[On a spring day Andreia, Miguel and their father António went to the park in their city (...).]

Ana Cláudia (Group B)

- Introduction of place: this presents the geographical setting where the beginning of the narrative takes place. Ana Marlene chooses a garden, which she describes as being full of flowers (equally highlighted).

Pai foi passear com os seus filhos e passaram por um Jardim muito bonito cheios de flores. [The father walked with his children and they passed by a very pretty garden full of flowers.] Ana Marene (Group B)

[^82]- Introduction of the characters: gives information about the agents of the actions and can take different forms. José gives them very long names and ages, for example (highlighted).

Um senhor e os seus filhos foram passear a ao parque. O senhor tinha uma camara Fotografica para tirar fotos aos filhos dele. O senhor chama-se Xavier José Pereira Vieira, o filho mais novo com 5 anos chama-se Andre Pereira Vieira e a filha que tem 13 anos chama-se tania Karina Pereira Vieira.
[A man and his children went for a walk in the park. The man had a camera to take photos of his children. The name of man is Xavier José Pereira Vieira, the youngest son was 5 years old and is called Andre Pereira Vieira and the name of the daughter who is 13 years old is tania Karina Pereira Vieira.]

José Manuel (Group B)

- Introduction of continuous actions: this collects data about all actions which endow the narrative with movement and dynamics, as in Emanuel's example, below, which uses a periphrastic verbal construction (in bold).

Um senhor chamado filipe ia a passar pela rua e disse a uns miudos se podia tirar uma fotografia aos dois para recordação.
[A man called filipe was going for a walk in the street and he asked some kids if he could take a souvenir photo of them]

Emanuel (Group B)

- Temporal structure - this concerns all temporal specifications within the narrative structure and is divided into different markers, both adverbial as well as others, which are listed and exemplified below:
- Markers of:
- Anteriority: indicate actions which take place before other actions can take place in a sequence:

Der Vater hatte eine Kammera und wollte sein Kind und seine Frau Fotografieren.
Seine Frau ist aber vor dem Foto aufgestanden, hatt die Kammera genomen und ihren Mann in Blumenbett geschubst.
[The father had a camera and wanted to photograph his child and his wife.
However, his wife got up before the photo, took the camera and pushed her husband into the flower bed.]

Francisco (Group D)

- Simultaneity: refer to actions which happen at the same time:

Als sie dem Park entlang gingen stoßen sie auf einer netten Bank, sagte Peter zu dem Kindern: ,setzt euch hin damit ich ein Foto von euch machen kann.
[While they went along the park they came across a nice bench, Peter said to the children: "sit down so that I can take a photo of you."]

Renato (Group D)

- Posteriority: indicate actions which take place after others:

Dann sagte Emely: "Vielleicht ist es zu nahr drann." Danach erwiderte der Vater und sagte: "Emely nimm du die Kamera ich teste wie weit es sein kann, bis ich ein Foto machen kann."
[Then Emely said: "Maybe it is too close." Afterwards the father answered and said:
"Emely take the camera so that I can test how far it can be, before I can take a photo."]
Lúcio (Group A)

- Non-adverbial temporal markers: these are predominantly temporal data which are too precise to be supplied by a single adverb and are thus composed of clusters of words:

Katia schoss ganz schnell ein Foto und half ihn raus.
Am nächsten tag sah die Mutter den Foto, die Mutter sagte lachend: "OH mein Gott."
[Katia took a photo quickly and helped him out.
The next day the mother saw the photo, the mother said laughing: "OH my God. ']
Marlene (Group B)
Ein par Minuten später sagte der Papa: "ich weis was wir tun sollen, wir machen fotomare mit meine Kammera was ich habe."
[A few minutes later their Dad said: "I know what we should do, we should take photos with the camera that I have. "]

Sérgio (Group B)

- Cause-effect markers - collects all linguistic means which supply information about the causes and effects of the different actions. It is divided into the following items:
- Explanation of events and actions: supplies reasons for certain events and includes purpose clauses:

O pai disse ao João e á Joana para eles se assentar-se no banco para ele fazer fotos.
[Their father told João and Joana to sit down on the bench so that he could take photos.]
Lúcia (Group D)

- Consequences of events and actions: gives the results of certain actions and are mostly achieved through the use of causal connectors:

Da sahen sie eine Bank die volle Blumen und Graß war und der Vater fand es deshalb schön und wollte ein erinerungs Foto machen.
[Then they saw a bench which was surrounded by flowers and grass and the father found it pretty because of that and wanted to take a souvenir photo.]

Lúcio (Group A)

- Adversative connectors: mark the narrative moment of suddenness:

Auf einmal hörte er lachen er dachte es sind kinder, er dehte sich um, doch es waren frauen die lesterten.
[All at once he heard laughs and thought it is children, he turned around, however, it were women who were cursing.]

Larissa (Group D)
ii. Affective markers - These are linguistic or content-specific features which above all serve to involve the recipient of the narrative in the action and therefore produce a relation to the addressee. This can be achieved in several ways, as exemplified below:

## - Content features:

- Reported speech:

Dann fragte Tom ihren Kinder ob sie hier ein Foto machen können.
[Then Tom asked his children whether they could take a photo here.]
Janine (Group D)

- Direct speech:

Die Kinder sagten: "Jetzt machen wir ein Foto von dir Papa."
[The children said: "Now we will take a photo of you, Dad."]
Der Vater sagte: "Ok, ich setze mich vor dem Blumenbeet."
[Their father said: "Ok, I will sit in front of the flower bed".]
Sabine (Group D)

- Verbalization of the characters' perceptions and sensorial impressions:

Num dia um fotógrafo estava a passear pelo jardim quando viu dois meninos e perguntoulhes(...)
[One day a photographer was walking through a garden when he saw two children and asked them (...)]

Sónia (Group B)

- Verbalization of the characters' wishes and intentions:

Era uma vez um senhor que queria tirar uma fotografia a 2 meninos, esses meninos aceitaram. Depois, o senhor queria que lhe tirassem uma fotografia a ele, os meninos aceitaram.
[Once upon a time a man who wanted to take a photo of two children, the children agreed. Then the man wanted them to take a photo of him, the children agreed.]

Marta (Group B)

- Verbalization of the characters' compulsive actions:

Es waren einmal zwei kinder, sie haben im Park in einem Spielplatz gespielt dann hat die Mutter gesagt "kommt kinder, wir müssen gehen" dann hat die Mutter gesagt "ich muss mal auf klo ich komm gleich wieder, setzt euch auf die bank und wartet auf mich."
[Once upon a time there were two children, they played in the park in a playground then the mother said "come children, we must go" then the mother said "I must go to the toilet I'll be back soon, sit on the bench and wait for me."]

Tobias (Group D)

- Verbalizations of the characters' thoughts:

O pai caiu e todos pensaram que a fotografia ficou bem gira.
[The father fell down and they all thought the photo was funny.]
Luís (Group B)

- Verbalization of the characters' mood or feelings:

Da sah der Herr die beiden und war erstaunt weil die Kinder so begeistert wahren mit dem Beet.
[Then the man saw them and was surprised because the children were so excited about the flower bed.]
Maria (Group D)

## - Language features:

- Iteration:

Er ging immer weiter und weiter zurück.
[He went further and further back.]
Alex (Group A)

- Onomatopoeia:

Der Man macht ein Foto es machte Klags und plözlich fliegt eine Taube vorbei und es machte Ffffff.
[The man takes a photo and it went clack and suddenly a pigeon flew and it went fffffff.]
Maik (Group D)

- Temporal adverbs marking suddenness:

Mas de repente ele viu umas crianças uma Menina e um Menino eles eram irmãos.
[But suddenly he saw some children a girl and a boy they were brother and sister.]
Vanessa (Group D)

- Expressive verbs:

Die Sonne blitzte immer wieder zwischen den Bäumen hindurch und brachten Emmas Haare zum glitzern.
[The sun glimmered constantly between the trees and made Emmas hair shine.]
Silja (Group A)

- Modifying adjectives:

Mas acabou por ficar ele na foto caiu num canteiro de flores e estava com um cara esquisita e foi para casa e mostrou a mãe o que tinha acontecido.
[But then he himself was in the photo he fell into a flowerbed and he was with a strange face and went home and showed their mother what had happened.]

Adriana (Group B)

- Intensifications:

Der Vater sah ganz schön Komisch aus. Die Kinder lachten sehr.
[The father looked very funny. The children laughed a lot.]
Sabine (Group D)
As this model had been developed and tested for the German language, it was felt, after extensive analysis of the collected material, that an additional category was required for Portuguese. The category in question (which was tested on the whole sample in order to confirm its validity as a possible indicator) is of verbal nature and has been termed "expressive verbal constructions." It involves two or more periphrastic constructions or phrasal verbs of an expressive character which are put after each other mostly in order to extend the degree of accurateness of the main verb. Below is a list with several examples of the students' productions:

E caiu no canteiro de flores e não conseguiu evitar deixar cair a camara fotografica no chau. [And he fell into the flowerbed and could not avoid dropping the camera onto the floor.]

Maik (Group D)
E o filho Marcello não conseguia parar de rir.
[And son Marcello could not stop laughing.]
Renato (Group D)
Depois quem acabou por ser fotografado foi o próprio pai.
[Then who ended by being photographed was the father himself.]
Ana Marlene (Group B)
Ele estava a tentar tirar uma fotografia onde os dois filhos dele apareçam.
[He was trying to take a photo where both children would appear.]
Fátima (Group B)
(...) até que apareceu um cão e levou a máquina fotográfica que estava no banco enquanto a Ana e o Tiago tentavam ajudar o pai a a levantar-se até a apanharem a máquina da boca do cão e a adoptá-lo.
$[(\ldots)$ until a dog appeared and took the camera that was on the bench while Ana and Tiago were trying to help the father to get up to take the camera out of the dog's mouth and to adopt it.]

Xavier (Group B)
With this specific narrative category, the proficiency of the students in this particular textual form can be recorded and compared for all three productions and in both languages. Furthermore, the validity of such a model can be verified and possibly adapted for the Portuguese language.

### 2.2 Cognitive academic language

Going back to Figure 16, another category refers to cognitive academic language and includes specific linguistic resources established for each of the languages. With this category, it was intended to stipulate the linguistic features typical of the written narrative academic discourse of bilingual students at this age group. During the four years evaluation of the bilingual primary schools, the features of the oral explanatory academic language had been theoretically analysed and served as basis for the current analysis.

Within this analysis, the same categories in German were used as basis for an initial approach to the data: nominalization, compound words, attributions, participle present, impersonal expressions, constructions with the auxiliary verb "lassen" ${ }^{159}$, use of passive voice and subjunctive. For the Portuguese language, where almost no literature was found on this topic, the linguistic features established were: nominalization, attributions, subordinate clauses introduced by gerund (-ing form), impersonal expressions, use of passive voice and subjunctive. ${ }^{160}$ However, the present study intends to further develop this category for this Portuguese language.

The first conclusion to be made, when trying to apply the analysis scheme of the oral data to the Tulpenbeet productions, is that impersonal expressions are typi-

[^83]cal of an explanatory abstract discursive style; in narration, persons, or characters are necessary to complete the actions. Therefore, this category was removed from the analysis. The second aspect is that a so-called colloquial style with jargon and oral terms was not found in the texts and dictations, not even in the productions of the less proficient students of Group B in German or Group A in Portuguese. It is typical of oral discourse that all students avoided colloquialisms when writing, although making use of different strategies. In the oral samples there was, however, some evidence of a colloquial style. This will be explored in more detail when discussing the results. Moreover, constructions with the verb "lassen" were also not found to play a significant role and were thus removed from the final analysis. Lastly, although passive voice constructions are also normally typical of an explanatory speech type in German, they were included in the current collection as they featured regularly in both languages and seemed to play an important role also in narrative academic writing.

As a result, a whole new pattern needed to be created for the analysis of the academic language of the narrative style. Table 18 shows a list of the final categories established for both languages with the correspondent examples.

Table 18 - List of linguistic features used for determining cognitive academic language in both languages.

| Linguistic <br> phenomena | Examples |
| :--- | :--- |
| Portuguese |  |
| Nominalization | "O divertimento da família foi muito grande." <br> [The family's fun was very big.] |
| Attributive con- <br> structions | "O fotógrafo ficou tão surpreendido que guardou a foto em casa." (Group B) <br> [The photographer was so surprised that he kept the photo at home.] <br> Sónia (Group B) |
| Participles | "Quando ele está nas flores deitado, os meninos pegaram na camera e tiraram <br> uma foto." <br> [When he is lying on the flowers, the children took the camera and made a <br> photo.] |
| Gécio (Group A) |  |$|$| "Chegando lá a Mia mostrou logo à avó e à mamá. Eles todos fartaram-se de rir |
| :--- |
| até o Papa se riu." |
| [Arriving there Mia showed it immediately to the grandmother and mother. They |
| all laughed even the father. ] |


| German |  |
| :---: | :---: |
| Nominalization | "Sie setzten sich auf die Bank und lächelten zur Kamera. Das Einstellen der Kamera hat ein wenig gedauert." <br> [They sat down on the bench and smiled at the camera. The adjusting of the camera lasted a little.] <br> Artur (Group A) |
| Compound words | "Das Mädchen hob den Fotoapparat sie machte ein foto und es machte Klags." [The girls took the camera and took a photo and it went clack.] <br> Maik (Group D) <br> "Nachdem sie zuhause ankommen kleben sie das in das Fotoalbum." <br> [After they arrived home they put it in their photo album.] Cristiana (Group D) |
| Attributive constructions |  |
| Present participle | "Am nächsten tag sah die Mutter den Foto, die Mutter sagte lachend: 'OH mein Gott'." <br> [The following day the mother saw the photo, she said laughing: "Oh my God."] <br> Marlene (Group B) |
| Passive voice | "(...) der Vater ist immer weiter zurück gegangen. Bum der Vater wurde geschubst und ist hingefallen!" <br> [the father went on and on backwards. Bum the father was pushed and fell down.] <br> Denis (Group D) |
| Subjunctive | "Sarafina hat gesagt: wenn João auf dem Foto wäre würde ich auch eine machen." <br> [Sarafina said: if João was on the photo I would also take one.] <br> Catarina (Group B) |

### 2.3 Common underlying proficiency

On the remaining side of Figure 16, common underlying proficiency, adopted from Cummins'(1979a), has been used two-dimensionally in the current study, as the data was assessed both intra- and interlinguistically. In addition, the extent to which the cognitive processes used by the children in solving this narrative task are similar in texts, dictations and oral productions will be assessed, in both languages.

Lara's example below serves to exemplify what is meant by intralinguistic proficiency. As mentioned before, at the time of the first data collection she had just arrived in Germany, therefore the text she produced reveals her knowledge of the German language after almost a year of language acquisition. The dictation was collected only one month after her text and oral production, at the end of the sixth grade, and corresponds to a little more than two years of second language learning. The three productions are presented below.

## TEXT

## Der fotografe

Es wa ein mal zwei Kinder und eine mam.
Deses man heiße Andonio e de zwei kinder heißeren Mari un Nicci sie farten aine foto maren.
Der Mam saquede só den baiden Kinder si ztelen sis setze.
Die baide Kinder crabe quesetze. Und de fotografe rade aine foto quemarde und der mãe rade nar fia foto quemarte rade.
Um die Kinder vaiten meite im Spiel lloz rade de fotoaparade que hebem eim er rade meia que conte um stolperm er um de Kinder haben eine foto gemachte.
[Once upon a time there were two children and a man.
This man was called Andonio and the two children were called Mari and Nicci they wanted to take a photo.
The man told the two children to sit down.
The two children sat down. And the photographer took one photo and the mother also took more photos.
And the children wanted to make a game and took the camera he had tripped and the children took a photo.]

## DICTATION

## Der Fotograph und das Foto

Es war einmal zwei Kinder die eingeladen wurden bei ein Fotoshooting in einem Park.
Der Fotograph hatte den Kinder gesagt, sie sollen in Bank sitzen damit das Foto schöner aussieht. Der Fotograph hat zu machen um perfekt zu sein. Dann stürzt er ins Blumenbeet und da liegt er und das kleine Mädchen ist aufgestanden und der Junge auch um eine Foto zu machen, das Mädchen hatte die Foto dem Fotograph gezeigt und er fand das Foto schön das er im Blumenbeet gemachte hatte und findet es lustig.
[There were once two children who had been invited to a photo shoot in a park.
The photographer told the children to sit on a bench so that the photo would look nicer. The photographer has a lot to do to be perfect. Then he falls into the flowerbed and he lies there and the small girl has got up and the boy also in order to take a photo, the girl showed the photo to the photographer and he found the photo nice with him in the flowerbed and finds it funny.]

ORAL PRODUCTION ${ }^{161}$
L: ehm - hier sind so/ ist eine Park - wo die Kinder gerne spielen [here is a park where the children like to play]
I: ja-mhm
L: und ein Park an dem man so vorbei gehen kann [and a park where one can stroll along]
I: mhm
L: und auch Fotos machen - da ist eine roten Bank und so gibt es zwei Kinder - und ein Fotograf - die ehm eimf/ die zwei Kinder irgendwie gebeten hat ein Foto zu machen - und ehm/ aber sie sollten in die/ in die roten Bank sitzen [and also make photos - there is a red bench and two children - and a photographer - who somehow asked the children to take a photo of them - but they should sit down on the red bench]
I: mhm
L: und er muss eh die richi/ die rich/ richtig E/Einstellung machen - um zu sehen wie es ist ehm wenn man/ ja wie man das bleibt wie Foto gut ist oder nicht [and he must find the right position - to check how the photo is good or not]
I: mhm

161 " $L$ " is Lara and " $I$ " is the interviewer.

L: und der Mann wollte immer mehr v/ hinten gehen - er ist immer nach hinten gegangen - und er hat das nicht mal gesehen dass er/ das o/ hinten eine Blumstrauß war - und bei Blume und ehm ist da hinter gegangen immer hinten und er wollte/ er sagte immer/ und die Mädchen und die Junge haben so gesehen aber nichts davon gesagt [and the man wanted to go further backwards and the girl and boy saw it but said nothing]
I: mhm
L: und sind/ und er ist immer hinten nach/ nach hinten gegangen und er ist runter gefallen [and he went further and further back and he fell down]
I: wieso ist er runter gefallen? [why did he fall?]
L: weil dann ehm - wie man/ immer wenn ein Blumstrauß ist gibt es immer so solche Garten/ Garten/ Gartenzaun glaub ich [because in a flower bed there are always such fences I think]
I: mhm
L: ehm die man ehm/ immer verhindert damit die Blumen kaputt gehen [which prevent the flowers from getting ruined]
I: mhm
L: und ja er wollte das er hat das nicht gesehen und ist immer noch nach hinten [ $\because::]$ runter gefallen [and he didn't see and kept on going backwards until he fell down]
I: mhm
L: und das Mädchen ist schnell aufgestanden [and the girl got up quickly]
I: mhm
L: und hat die Foto/ ehm Fotoapparat $\mathrm{m} /$ genommen und hat eine Foto geschossen [took the camera and took a photo]
I: mhm
L: und am ehm am Ende f/ fand er die Foto ganz gut und ehm er hat sogar bei die Mädchen offen bedankt dass die Fo/ die Fotos so geworden ist - und ehm er findet auch gut und lustig und haben davon gelacht - und ehm - ja und er hat diese Foto aufgewacht [in the end he found the photo pretty good and even thanked the girl that the photo turned out so good and he finds it good and funny and all laughed about it - and he kept this photo]
I: okay - hat deine Geschichte ein Titel vielleicht? [does your story have a title perhaps?]
L: mhm - die Fotograf und die Garten - oder/ oder der Park [the photographer and the garden - or the park]

Lara (Group B)
At first sight all three productions are very different from each other, both in their nature as well as regarding Lara's linguistic proficiency. However, deeper analysis demonstrates that the main reason for the apparent divergence between the productions is particularly connected to her poor spelling in the text. In all three productions she mentions the characters and the setting where her story takes place and in the text she even names the characters. All the productions also have a title, are predominantly told in the past tense and explain the actions or intentions of the characters. Furthermore, all three make use of reported speech and of compound words. In short, it appears that even productions with a clear divergence in form are connected through some sort of underlying cognitive proficiency, at least when done in the same language. However, they are also very different from each other. Thus, the current study sets out to study this question in more detail.

What about the relation between a bilingual's two languages? Do they share the same cognitive space? If we look at Cristiana's examples below, the visual layout alone shows that the textual strategy chosen is the same for both languages, as she
divided and numbered her productions according to the pictures of the Tulpenbeet prompt. Moreover, apart from Pictures 3 and 4, which show some differences, the content of the texts is practically identical. For example, the father's wish to take a photo is expressed in the narration of both first pictures, as well as the fact that it was included in a photo album.

## TEXT IN GERMAN

1. Ein Vater will Fotos von seinen Kindern machen, er sagt sie sollen sich auf die Bank setzen.
2. Nachdem sie auf der Bank sitzen will er das Foto machen.
3. Um die beiden richtig aufs Bild zu kriegen geht er immer weiter zurück und fällt in ein blumenbet.
4. Dan kommt das Kind und nimmt die Kamera und macht ein Bild von ihm.
5. Nachdem sie zuhause ankommen kleben sie das in das Fotoalbum.
[1. A father wants to take photos of his children, he says they should sit on the bench.
6. After they have sat down he wants to take the photo.
7. To get both into the picture he keeps on going backwards and falls into a flowerbed.
8. Then the child comes and takes the camera and takes a picture of him.
9. After getting home they stick it into their photo album.]

## TEXT IN PORTUGUESE

1. O pai quere fazer uma Fotographia dos filhos ele diz los para asentarse nu banco.
2. Cuando eles asentaram-se ele quere fazer a Fotographia.
3. Mas ele não consege ver os filhos e vai mais pra tras.
4. Ele cai pra cima das flores e a filha faz uma Fotographia dele.
5. Depois de estar em casa eles colam a Fotographia dentro do libro.
[1. The father wants to take a photo of his children and tells them to sit on the bench.
6. When they are sitting he wants to take the photo.
7. But he cannot see both of them and goes further backwards.
8. He falls into the flowers and the daughter takes a photo of him.
9. After getting home they stick the photo into the book.]

Cristiana (Group D)


Figure 17 - Schematic overview of the Tulpenbeet-tool used in current analysis.

For these reasons, the relations between the different types of productions and both languages will be analysed more deeply in this study. A complete schematic overview of the Tulpenbeet-tool used in the current analysis is given in Figure 17 above. The presentation of the results will be divided into two sections. Section 3 provides a complete analysis of the data referring to the Rudolf Ross bilingual school, including texts, dictations and oral productions, while Section 4 deals with the comparative assessment of the texts and oral productions of all three groups.

## 3. Analysis of the data collected in the Rudolf Ross bilingual class

The results were analysed in accordance with the schematic pattern displayed in Figure 20. While narrative competence and cognitive academic language will be dealt with in separate sections 3.1 and 3.2, the common underlying proficiency will be explored throughout them. As mentioned before, some statistical methods will be used to perform a quantitative analysis of the relations between the items of the categories used for the analysis of the data.

### 3.1 Narrative competence

## Extension and complexity

While the texts operate as complete literary productions, the dictations represent an overlap of oral and written forms. Accordingly, the general picture offered by the results shows a stronger network of correlations within the textual productions than in the case of the dictations or oral productions. On the other hand, the fact that, in dictations, the students are not confronted with the act of writing itself (and were therefore able to avoid having to deal with explicit spelling and grammar rules) and are interacting directly with the person doing the writing, increases motivation and facilitates the cognitive fulfilment of the task. As a result, the Portuguese textual productions, where the writing process still causes difficulties (not only for the German students but also for the bilingual students that entered the programme in the last two years with no prior literacy in this language) are significantly shorter than the dictations. As mentioned above, the extension and complexity category was not applied to the oral productions, as the data would not be comparable due to the intervention of the interviewers.

As shown in Figure 18, the Portuguese dictations are comparable in extension to the German texts and dictations, possibly suggesting that the students' knowledge of that language is still more oriented by the rules of oracy than by those of written discourse. On the other hand, the German textual productions are even a little longer than the dictations in this language, which consequently demonstrates student familiarity with German written rules.


Figure 18 - Mean of total of words in both languages and productions.
In an attempt to find further reasons for the much shorter textual productions in Portuguese, the difference in the performance between the students who took part in the programme during primary school $(\mathrm{n}=12)$ and those who did not $(\mathrm{n}=13)$ was considered. Figure 19 thus shows how students that had not taken part in the programme from the beginning but joined it later, in the fifth or even sixth grades, were disadvantaged in relation to the others. This drawback represents a statistical trend, especially in the case of the textual productions and in the Portuguese language, although it is not significant, probably due to the small size of the groups.


Figure 19 - Comparative mean total of words in texts and dictations for students with continuous bilingual education and those who had recently joined the programme.

When we take into consideration the linguistic presuppositions of the students upon entering the programme, ${ }^{162}$ the monolingual German students display a considerable advantage when writing German texts. This is predominantely due to one student (Leonardo), who wrote the longest text of any since the beginning of the scientific evaluation of these bilingual classes, significantly influencing the results. Nevertheless, vis-à-vis the German productions, the remaining results reveal no other significant differences between the performances of the various groups. This is thus the first assessment since the beginning of the bilingual class where the students of Group B performed as well as the other groups, with almost no distinction.

162 Due to its statistical insignificancy, the one student from Group C (Lena) was put together with Group A.

Concerning the Portuguese productions, as expected, Group A displays significantly shorter productions (in relation to Group B, $\tau=-41.21$; $\mathrm{p}<.05$ and to Group D, $\tau=-50.77$; $\mathrm{p}<.05$ ) than the other groups, while Group D displays the longest productions, although with no significant difference in relation to Group B. Thus, the German productions are generally longer. Texts and dictations are similar in the number of words and sentences; however, the MLS is slightly higher in the case of the dictations. The Portuguese dictations are similar to the German texts and dictations, with no significant differences.

## Cognition and "Literariness"

## German language

When checking for inter-correlations within task accomplishment and motives, a network of connections was found, showing that these categories are closely linked to each other. The texts showed a total of twenty correlations among the eight items comprising this category, while the dictations displayed seven and the oral productions eleven, indicating that this type of productions as instrument might be more reliable.

In the case of the textual productions, the strongest category is motives behind the characters' actions, correlating at a highly significant level with task accomplishment ( $\tau=.560 ; \mathrm{p}<.01$ ) and with name attribution ( $\tau=.651 ; \mathrm{p}<.01$ ). At a significant level, it correlates with shaping of the end of the text $(\tau=.416 ; p<0.5)$, explanation for the man's fall $(\tau=.460 ; \mathrm{p}<.05)$ and reference to the children's action ( $\tau=.499 ; \mathrm{p}<.05$ ). Hence, a text whose actors and actions are impelled by motives implies a higher cognitive effort, as well as the presence of more literary features.

In addition, the category of task accomplishment was revealed to be particularly reliable, correlating, as mentioned above, with motivation, as well as with use of direct speech ( $\tau=.420 ; \mathrm{p}<.05$ ), name attribution to characters $(\tau=.474 ; \mathrm{p}<.05)$, explanation for the man's fall ( $\tau=.556 ; \mathrm{p}<.01$ ) and reference to the children's action ( $\tau=.698 ; \mathrm{p}<.01$ ). Therefore, the better a student copes cognitively with this task, the more differentiated and precise becomes the text and the more literary features it includes. Validating this statement is a network of further correlations between the various categories, ${ }^{163}$ solidifying the relation between cognition and "literariness".

When considering the dictations, and their similarity to the texts, the categories of motives behind the characters' actions and task accomplishment are the most substantial ones and correlate here not only with each other but also with some of the literary features, such as the shaping of the beginning of the text. Regarding the specification of the missing scene, the only correlation found was between the two categories themselves - explanation for the man's fall and reference to the chil-

[^84]dren's action ( $\tau=.666 ; \mathrm{p}<.01$ ). On the whole, the dictations are less involved and the correlations between the different categories are less solid. As with the previous productions, the categories of task accomplishment and motives behind the characters' actions were also the most reliable for the oral productions. They correlate with each other ( $\tau=.564 ; \mathrm{p}<.01$ ), and also with most of the literary features; for example, task accomplishment with the organization of the beginning ( $\tau=.435 ; \mathrm{p}<.01$ ) and end ( $\tau=.372 ; \mathrm{p}<.01$ ) of the texts, as well as with use of dialogues ( $\tau=.445$; $\mathrm{p}<.01$ ) and explanation for the man's fall ( $\tau=.368 ; \mathrm{p}<.01$ ) and for the children's action ( $\tau=.385 ; \mathrm{p}<.01$ ). Furthermore, the different literary categories correlate with each other and with the specification of the missing scene. Consequently, the higher the proficiency in solving this narrative task, the more literary features were used by the students, a result that was also valid for the oral productions.


Figure 20 - Mean of the category motives behind the characters' actions for the texts, dictations and oral productions - German.


Figure 21 - Mean of the category task accomplishment for the texts, dictations and oral productions - German.

Figures 20 and 21, showing motives and task accomplishment in all three productions, reveal a number of differences in the mean achievement. The dictations and oral productions show a similar pattern regarding motivation for the characters' actions, while the students were not able to achieve this performance in the texts. Again one might attribute this lower performance to the act of writing itself which possibly weakens the cognitive involvement of less proficient students, divided between a
cognitive component and spelling and grammar rules. The differences between the performances were, however, found to be insignificant $[F(12,21)=0.291 ; p>.05] .{ }^{164}$

In this last case, the difference in the mean achieved for task accomplishment cannot clearly confirm whether it is easier for the students to solve a task when they are not asked to simultaneously deal with the act of writing. When testing for possible differences between performances, there was in fact a significant global effect found $[\mathrm{F}(2,20)=5.246 ; \mathrm{p}<.05]$. However, this was due to the significant difference between dictations and oral productions and not texts ( $\mathrm{F}=2.82 ; \mathrm{p}<.05$ ).

Nevertheless, the result of the oral productions shows a higher general performance than in the other two productions, possibly due to the fact that it was conducted at the end and the children were already familiar with the pictures.

The same pattern repeats itself in almost all of the categories; the students performed better in the dictations and oral productions, although the network of correlations in these instruments is not as involved as for the texts. However, when analysing this feature in terms of the language groups, we observed that this trend is contradicted in the monolingual German group, with regards to task accomplishment. In cognitive terms, these students performed similarly in both texts and oral productions, attaining poorer results in the dictations. Such high achievement in the texts of the monolingual German students may be due to one text written by Leonardo, as mentioned above; as Group A only includes five students, the extreme performance of this one text greatly influences the general results in such a small sample.

However, when testing for differences among the language groups for task accomplishment in German, no significant results were found $[F(4,40)=1.231 ; p>.05]$ despite the disparities displayed in the graph. As for the other two language groups, it becomes evident that task proficiency is more dependent on the students' knowledge of written academic German language. They both performed better in dictations and oral productions. The attainment of the students in Group B is particularly striking, since they achieved a similar result as the monolingual German students in the oral productions, although the performance difference in the texts between these two groups was somewhat disparate. However, as mentioned above, it was not significant, although the groups were too small to allow generalizations.

When considering the effects of the programme on these two productions in German and taking the category task accomplishment once more as an example, Figure 22 shows that, particularly in the case of the texts, the students who had participated in the programme since the beginning performed slightly better. In the dictations, this difference is not as accentuated. Once again, when performing orally all students attained a higher level than in the other two forms and the difference between the groups was smaller. These differences are nonetheless insignificant $[\mathrm{F}(2,19)=0.536 ; \mathrm{p}>.05]$. In view of determining further differences which

[^85]might be significant, the motivation behind the actions of the characters was also tested and no significant difference was found $[F(2,20)=0.021 ; p>.05]$.


Figure 22 - Mean performance in the category task accomplishment for students with recent and continuous bilingual education - German.

Accordingly, the hypothesis might be raised that this dual language programme predominantly impacts upon the use of written academic language and has less influence the comparison between oral and written. The students who performed better in the written texts were also those with higher overall school achievement, as this is at present the main form assessed by the school.

After a factor analysis had been performed for the category of cognition and "literariness" in all three productions, it was concluded that all items form one statistically reliable category. The alpha-values are $\alpha=.70$ for the texts, $\alpha=.63$ for the dictations and $\alpha=.72$ in the case of the oral productions. These are very high figures when considering that we are dealing with somewhat limited amount of cases.

## Portuguese language

The network of correlations within all Portuguese productions is as solid as in German, though less obvious (eleven correlations within the texts, seven within the dictations and fifteen within the oral productions). The two strongest categories are also motivation behind the characters' actions and task accomplishment. The network of correlations with the other categories is mostly established through these two items. In general, the same trends observed for German are valid for Portuguese; the more cognitively complex a text is, the more differentiated and the more literary features it contains. Thus the specific correlations between the different items will not be listed in more detail.

As can be seen in Figure 23, task accomplishment for all three productions shows similar results to those already displayed for the German language. The texts reveal a significant lower cognitive achievement in relation to the oral productions $[\mathrm{F}(2,23)=4.039 ; \mathrm{p}<.05]$. It is noticeable that in both dictations and oral productions the students were more able to cope with the task. When analysing the category of
motives behind the characters' actions, a significantly poorer performance was also found between the texts and dictations $[\mathrm{F}(2,23)=4.516 ; \mathrm{p}<.05]$.


Figure 23 - Mean of the category task accomplishment for the texts, dictations and oral productions - Portuguese.

Also valid for the Portuguese productions is the advantage found in dictations and oral productions, and in this case, this is equally true for the monolingual German students. In the case of task accomplishment, the group that performed best were the Portuguese-German bilinguals. Although the monolingual German students showed some disadvantage, this difference in performance is not significant in any of the productions $[\mathrm{F}(4,41)=1.160 ; \mathrm{p}>.05]$. In order to be sure that this lack of significance between the groups is not solely valid for task accomplishment, the analysis was repeated with respect to the motives behind the characters' actions. However, no significant differences were found $[\mathrm{F}(4,44)=0.526 ; \mathrm{p}>.05]$.

Again it could be seen that both dictations and oral productions, although with a less involved network of correlations, allow the students to perform better, as they do not need to be confronted with the act of writing itself, which in Portuguese still causes some problems to the majority of the students.


Figure 24 - Mean performance in the category task accomplishment for students with recent and continuous bilingual education - Portuguese.

When analysing the effects of six years of coordinated bilingual education, the results are similar to those found for the German language. In all three production types, but particularly in the oral productions, the students who had attended the programme since the beginning had an advantage over the new students, as demon-
strated in Figure 24 once again illustrating task accomplishment. This difference might confirm the literature on two-way bilingual programmes, which presupposes a minimum of four years in order for possible positive effects to start showing. In an attempt to find other probable explanations for this difference in performance, the two groups were closely analysed. Both have the same number of students and are identically distributed between the language groups. Moreover, the families' socio-economic status and educational attainment level, as well as the students' cognitive ability, were considered and revealed no major differences between the groups. This led us to conclude that the higher achievement of the students that had attended the bilingual education programme for six years was due to the positive effects of such a programme.

Although this difference is not significant for task accomplishment $[\mathrm{F}(2,22)$ $=0.172 ; \mathrm{p}>.05]$, it is almost significant for motivation behind the characters' actions $[\mathrm{F}(2,22)=3.345 ; \mathrm{p}=.054]$, which is a relevant result for such a small sample.

As for the German language, a factor analysis for the items in this category was performed and although the results were less marked than in German, they also appear to form a statistically reliable category. The alpha-values are $\alpha=.64$ for the texts, $\alpha=.68$ for the dictations and $\alpha=.65$ in the case of the oral productions.

## Intra- and interrelations between the categories

Texts, dictations and oral productions in each language, as well as between the languages, are also connected through a complex network of correlations. Once more, motivation behind the characters' actions and task accomplishment remain the strongest connecting features. This confirms that these two categories are related to a common underlying proficiency which is based on task proficiency skills and not on language-specific aspects. The statistical connections between these categories in both languages and forms show that the students make use of the same cognitive skills, whilst having different linguistic levels in both languages.

In German, the first of these categories correlates in all types of productions ( $\tau=.443 ; \mathrm{p}<.05$ ), whilst offering other associations. For example, the category of motives in the texts correlates with name attribution in the dictations ( $\tau=.585$; $\mathrm{p}<.01$ ) and the same item in the dictations correlates with task accomplishment in the texts ( $\tau=.418 ; \mathrm{p}<.05$ ). The literary feature name attribution is relatively stable; it correlates between texts and dictations ( $\tau=.512 ; \mathrm{p}<.05$ ), and in the dictations correlates with the category motivation in the texts ( $\tau=.585 ; \mathrm{p}<.01$ ) and also with shaping of the end ( $\tau=.506 ; \mathrm{p}<.05$ ).

In Portuguese, surprisingly, the network of relations between the productions is even more extensive. This can mean that, in this language, the differences between oral and written language discourse are still not completely acquired. The three categories mentioned above for the German language are also here the main features: motivation correlates between all productions ( $\tau=.668 ; \mathrm{p}<.01$ ), as well as task
accomplishment ( $\tau=.436 ; \mathrm{p}<.05$ ) and name attribution ( $\tau=.516 ; \mathrm{p}<.01$ ). Moreover, these three categories display a vast network of correlations with other items; for example, motivation behind the characters' actions in the dictations correlates with shaping of the end in the texts ( $\tau=.443 ; \mathrm{p}<.05$ ) and with task accomplishment ( $\tau=.468 ; \mathrm{p}<.05$ ). Conversely, motivation in the texts also correlates with shaping of the end in the dictations ( $\tau=.417 ; \mathrm{p}<.05$ ). When taking into consideration the specification of the scene covered by the question mark, the same degree of correlations is found. The explanation for the man's fall, for instance, correlates between all productions ( $\tau=.677 ; \mathrm{p}<.01$ ) and in the texts with shaping of the beginning in the dictations ( $\tau=.449 ; \mathrm{p}<.05$ ). Reference to the children's actions in the texts correlates with motivation behind the characters' actions in the dictations ( $\tau=.448 ; \mathrm{p}<.05$ ) and with explanation for the man's fall ( $\tau=.410 ; \mathrm{p}<.05$ ).

The analysis of the interlinguistic relations provides an even more complex picture of this category. Here, in addition to the three categories mentioned above, the shaping of the end of the production and use of direct speech contribute to the solidification of the grid of correlations. The fact that about $65 \%$ of all correlations between productions and languages is of high significance ( $\mathrm{p}<.01$ ), added to the fact that the sample is of a statistically small nature, may confirm the reliability of the relation between task proficiency and "literariness" within the tested productions.

When directly comparing the two languages in the case of task accomplishment, and similarly to the results found for extension, the Portuguese texts show a disadvantage in relation to the other productions, which present similar results. This may mean that the linguistic knowledge of the Portuguese language is comparable to that in German but its transposition through written discourse still cannot be accomplished in a similarly successful manner. This becomes evident when considering that task achievement for Portuguese oral productions is actually higher than German in both texts and dictations. Task proficiency is thus available in this language but is not developed at a linguistic academic level, able to cope with the task of writing. This is particularly clear in the case of the monolingual German students.

## Cohesion

## German language

Considering the type of connectors used and, consequently, the sort of clauses preferred by the students, it can be observed that in all productions most clauses are of a copulative nature. This kind of coordinated sentence connection is also the first to be acquired and is easy to apply. They are followed by temporal clauses introduced by various adverbs and conjunctions, predominantly suggesting a temporal sequence, which is typical of a chronological narration of events happening in a story. Table 19 displays the most frequent connectors used in the German productions, as well as their percentages according to the number of students who have made use of them.

The table shows that in all three productions the copulative coordinating connector, as well as the temporal adverbs and conjunction ("als") and the use of relative clauses have a comparable distribution. $57 \%$ of the students, in the texts, $64 \%$ in the dictations and $21.9 \%$ in the oral productions use this copulative conjunction three or more times. The oral productions show the highest percentage of more frequent use of "und." Temporal adverbs and adverbial constructions, such as "ein par Minuten später" or "gleich danach", are mostly used once or twice in all productions. Due to their frequent application, these connectors are thus acquired to an extent that makes them independent of the specific rules of written discourse and are probably not identifiable with a high cognitive academic language style.

Table 19 - Most frequently used connectors in all three German productions.

| Connector | Texts | Dictations | Oral |
| :--- | :---: | :---: | :---: |
| und / und dann | $100 \%$ | $100 \%$ | $100 \%$ |
| temporal adverbs | $72.2 \%$ | $68 \%$ | $78.9 \%$ |
| relative pronouns | $33.3 \%$ | $32 \%$ | $42.1 \%$ |
| als | $41.7 \%$ | $36 \%$ | $34.2 \%$ |
| dass | $25 \%$ | $44 \%$ | $57.9 \%$ |
| weil | $8.3 \%$ | $12 \%$ | $50 \%$ |
| damit $/$ um zu | $22.2 \%$ | $32 \%$ | $50 \%$ |
| plötzlichkeit | $47 \%$ | $8 \%$ | $13.1 \%$ |
| aber | $38.9 \%$ | $36 \%$ | $42.1 \%$ |

To try to confirm this hypothesis, a factor analysis was performed with the most frequent connectors. Three main factors were found: copulative and relative clauses, temporal clauses with adverbs and conjunctions ("als" and "wenn"), as well as adversative clauses, and finally, cause and effect clauses ("weil" and "damit - um zu"). The first two factors may thus be identified with a more colloquial narrative style, while the cause and effect clauses correspond to a more elaborate connective style. When expanding the analysis to the less used connectors, two more factors were found to be relevant; the explicative and specifying connectors "also" and "nämlich," on the one hand, and the more temporal adverb "nachdem", which in German requires a somewhat complex syntactical construction in its correct use. The less frequent usage of these last two factors can lead us to presume that they are typical of a more academic written discourse. Accordingly, they were only found in the textual productions.

The idea that the man's accident happens "suddenly" is, by and large, only expressed in the German textual productions. Conversely, the use of the causal connector "weil" was infrequently used in the textual productions, while in both dictations and oral productions approximately $50 \%$ of the students often used it more than once.

## Portuguese language

As in the case of German, most of the clauses used were of a copulative nature, although a very small percentage of the students did not use them in their productions. They also tend to be followed by temporal clauses introduced by various adverbs and conjunctions. Table 20 displays the most frequent connectors used in the Portuguese productions, as well as the percentages of students who used them.

The table shows that in all three productions there is a more or less equal distribution of the copulative conjunction, as well as of temporal adverbs and conjunctions. These connectors are frequently used in all productions. Nevertheless, there are significant differences in the use of "porque," predominantly due to the intervention of the interviewer in the oral productions, which might have stimulated this sort of answers.

Table 20 - Most frequently-used connectors in all three Portuguese productions.

| Connector | Texts | Dictations | Oral |
| :--- | :---: | :---: | :---: |
| e / e então | $94.3 \%$ | $100 \%$ | $97.2 \%$ |
| temporal adverbs | $60.4 \%$ | $68 \%$ | $44 \%$ |
| relative clauses | $48.2 \%$ | $44 \%$ | $15.1 \%$ |
| quando | $30.2 \%$ | $56 \%$ | $22.6 \%$ |
| que | $32.1 \%$ | $52 \%$ | $49.1 \%$ |
| porque | $14.2 \%$ | $8 \%$ | $53.8 \%$ |
| para | $49.1 \%$ | $28 \%$ | $55.8 \%$ |
| mas | $28.3 \%$ | $20 \%$ | $44 \%$ |

A factor analysis also confirmed the existence of three main factors: copulative and relative clauses, temporal clauses with the conjunction ("quando"), adversative clauses and purpose clauses introduced by "para" as an isolated factor. This provides a similar situation to that found for the German language.

## Intra- and interrelations between the categories

When comparing the two languages in terms of the different types of sentence connectors (cf. Figure 25), it becomes apparent that the German productions make use of a higher variety of different connectors, although the only significant difference lies in the texts $[\mathrm{F}(2,21)=34.608 ; \mathrm{p}<.01]$. Thus the nature of textual involvement is here more wide-ranging. In both dictations and oral productions, there are very few differences between the languages, substantiating the hypothesis mentioned above that cognitive knowledge in both languages is comparable, even though some of the students are still in the process of acquiring the rules of written Portuguese.

When considering the use of cohesion by the different language groups, the types of connectors in all productions and both languages show a number of differences. In German, as mentioned above, the results of Group A were influenced by a single long text. However, in none of the productions were the differences particularly significant between the language groups $[F(4,40)=1.547 ; \mathrm{p}>.05]$.


Figure 25 - Mean types of sentence connectors in all productions and languages.
In Portuguese, as described, there were no differences apart from the significantly shorter productions by the monolingual German students $[\mathrm{F}(2,22)=5.572 ; \mathrm{p}<.05]$, either between the other two groups or in relation to the German language. The students from Group D seem to have balanced productions in both languages.

As for the evaluation of the programme, in all categories the students who had participated since the beginning showed better results in both languages. The differences are nevertheless insignificant $[F(1,23)=1.981 ; \mathrm{p}>.05]$ despite the fact that the one long production was by one of the new students. In all other cases, the advantage revealed by students that had participated in the programme from the beginning marks only a statistical trend, though a generally clear one.

Regarding syntactical constructions, as stated before, it was only possible to compare the texts and dictations, as the oral productions were too influenced by the intervention of the interviewers. However, the results are very similar to the others mentioned above; the number of sentences used in the productions is nearly identical in both languages, except for a small and insignificant difference in the Portuguese texts. This means that the students organize their texts using a very similar number of different syntactical constructions (though with fewer words or sentence connectors). The only significant difference in the use of different syntactical constructions found is within the main clauses with dialogue, where the German dictations show a big advantage in relation to the other productions. In all other cases, the differences are not significant. In general, the trend is towards the use of more complex forms of syntactical constructions.

When analysing individual cohesive devices, a complex network of significant correlations becomes apparent. Again the texts are more strongly linked than the dictations and function as a more compact and involved tool. However, this is more valid for the German language, as in Portuguese both productions are equally linked, as mentioned above for other categories. In all productions, the types and tokens of sentence connection correlate highly significantly with each other, as expected. Furthermore these two categories correlate with all types of syntactical constructions.

Interestingly, the two more complex forms of syntactical constructions correlate with each other, but not with the other structures. Thus, complex use of syntax can work as a sort of category per se; in addition, the less complex forms only correlate
with each other but not with these two more elaborated items. In German, the relation between texts and dictations only presents a negative correlation, which can mean that the intralinguistic relation does not manifest itself at a syntactical level. In Portuguese both texts and dictations present a similar picture, in addition to the relation between each other. The use of dialogues was the only common feature between the two productions ( $\tau=.538, \mathrm{p}<.01$ ). The negative correlations found between the languages serves to confirm that the common underlying proficiency in this sample does not operate at a syntactical level. The few positive correlations found once again link the use of simple syntactical constructions with each other and, conversely, with the use of a main clause followed by several subordinate clauses.

## Lexical range

Regarding verbal vocabulary in all three productions the most marked difference can be found between the texts in the both languages, especially concerning verb tokens. However, the amount of different verbs used (i.e. actual lexical range) is balanced in all productions, indicating that the different verbs are available in both languages but that their use in terms of quantity is still dependent on the amount of text produced and that this is higher in German.

When considering the different language groups, the Portuguese language presents a clear advantage for the bilingual students. The difference between texts and dictations becomes apparent only when considering the verb and noun tokens, where the dictations, due to their size, offer a larger number of forms. All other linguistic phenomena are balanced in both productions, except in the case of the monolingual German students who make more use of different verbs, adjectives and nouns in the dictations. The difference between German and Portuguese is more marked for Group A, but is significant only in the case of types and in the texts $[F(1,22)=16.837 ; \mathrm{p}<.01]$, in which, as mentioned before, one production strongly influences the results. Curiously, this is the first sample where Group B students showed a slight advantage in German over those in Group D, especially as regards verb, noun and adjective tokens and in both productions.

Modal and periphrastic constructions are used to a very small degree in both languages. Modal constructions are nonetheless present in both languages in a similar way, while periphrastic forms are more typical for the Portuguese language, which is a language-specific phenomenon. All groups include in their productions such figures of speech, recurring predominantly within verbal forms.

As for the number of tenses used in the narration of the stories, the differences are equally negligible. In Portuguese, the mean was 3.5 with no difference between the groups and in German it was a little smaller (3.37), also with a balanced use. In Portuguese, the monolingual German group managed to employ almost as many tenses in their texts as the other students.

Concerning the effects of the programme (and despite the one very complex text produced by a new student), the trend is towards an advantage on the part of the students that have attended the programme since the beginning, except in the German dictations. However, these differences are not statistically significant. In Figure 26, the differences in verb types are displayed as an example. When considering the particular case of adjectives, a feature that was nearly inexistent in the first primary school productions, the divergences in German are higher, especially when analysing the texts.


Figure 26 - Verb types for the students with recent and continuous bilingual education.
Between the language groups, there were significant differences found in the use of types of adjectives between the students of Groups A and $\mathrm{B}[\mathrm{F}(2.20)=4.221 ; \mathrm{p}<.05]$. However, no other significant differences were found for the other types of productions and for the Portuguese language. The majority of these lexical categories correlate at a 0.01 level with each other within the individual productions and in both languages. Both types and tokens of nouns and verbs demonstrate particularly strong correlations. Taking the German productions into account, a similar pattern can be found, as there is a solid network of strong correlations between noun and verb forms. Within the Portuguese productions, the network of correlations was not as strong as in German. Verbs and nouns are once again the most reliable categories, although in this case the strongest correlations derive from adjectival use.

The most peculiar relations derive nonetheless from interlinguistic comparison. Between both texts there are strong negative correlations, indicating that in textual discourse generally, a common underlying proficiency may not manifest itself at such a lexical level. This has also been tested for the individual groups. Yet, when we consider the genre that represents an overlap between oral and written discourse (i.e. dictations), a similar network of positive correlations is disclosed. As before, both verbal and nominal tokens and types are the basis for positive correlations. This indicates the fact that the act of writing itself allows access to the lexical rules of the individual systems but when dictating or narrating orally comparisons and transfers can be made more easily.

A network of negative correlations is also revealed in the relations between the languages when the different types of productions are compared (eg. Portuguese texts with German dictations). When a factor analysis was performed to test the validity of this category, it was concluded that in both languages and all productions, there is one reliable factor. In German, the $\alpha$-values were: $\alpha=.85$ for the texts, $\alpha=.78$ for the dictations and $\alpha=.86$ in the case of the oral productions. For the Portuguese, $\alpha=.84$ for the texts, $\alpha=.77$ for the dictations and $\alpha=.83$ for the oral productions. Thus, it can be confirmed that this category of lexical range attains a high level of reliability, although the number of cases is small.

## Proficiency and level

As mentioned in the previous chapter, the Boueke and Schülein model for the development of narrative levels was based on the age groups five, seven and nine, while the students in our sample were predominantly aged between twelve and thirteen. Nevertheless, a determination of narrative level was undertaken. This was considered to be important due to the significant number of students with limited proficiency in one of the languages (Groups A and B).

However, if we take the textual productions as an example, the great majority of students attained Levels III and IV, as shown in Figures 27 and 28. Thus, the sole determination of level seems to be inadequate for the analysis. This confirms the results found by Gantefort and Roth (2008).


Figure 27 - Level of narrative competence for the German language.


Figure 28 - Level of narrative competence for the Portuguese language.

Moreover, most of the texts had to automatically be placed at Level IV solely due to the use of isolated phenomena, such as direct speech or the adverb "plötzlich," even where they demonstrated a low level of expressivity or affective marking, among other qualitative differences. This lack of lexical range observed for these productions led to the need for a more profound analysis.

Therefore, this section includes an analysis of narrative competence conducted through frequency analyses of the different items, in order to achieve a more detailed insight into the productions. Additionally, the correlations between the categories will be explored, as well as the relations between productions and languages.

The results achieved by the students attending the dual language programme (as regards texts, dictations and oral productions) will be presented first for both languages. In a second phase, the control groups will be included in an analysis of texts and oral productions. Lastly, a number of suggestions will be made as to a possible expansion and refinement of the programme for this age group and in bilingual contexts, although this discussion will not be presented in a systematic manner as this is not the purpose of the current study. The analysis will include a reflection on the three main parts of the instrument used for data collection, in order to possibly validate and characterize them, and then the results for different language groups.

## German language

When considering the textual productions in this language, a factor analysis of the items related to the event-structural markers revealed three main factors, as was predicted in the original model. The items included in the category of differentiation of scene-setting (time, place, characters and continuous actions) have a $\alpha=.78$; those of temporal structure (anteriority, simultaneity, posteriority and non-adverbial temporal markers) have a $\alpha=.61$ and those corresponding to the cause-effect complex (explanation of events and actions, consequences of events and actions and adversative connectors) attained the stable value of $\alpha=.89$. By building new variables including these three factors, a significant correlation was found between the temporal markers and the cause-effect complex ( $\tau=.471 ; \mathrm{p}<.01$ ).

The dictations had very few correlations and not weaker connections between the items. Exposition is a relatively stable factor, while the other two are not clearly identifiable as factors.

Interestingly, the oral productions confirm the findings of the texts. The category of exposition has a $\alpha=.71$, temporal markers $\alpha=.67$ and the cause-effect complex $\alpha=.80$. Yet again there were correlations found between these three categories, mostly related to temporal markers, which correlate with exposition ( $\tau=.321$; $\mathrm{p}<.05$ ) and with the cause-effect complex ( $\tau=.375 ; \mathrm{p}<.01$ ).

The analysis of the affective markers was somewhat more challenging, as the division between content and language seemed not to apply to the current data set. In the textual productions, there was one stable factor found, including the following items: use of direct speech, verbalization of characters' perceptions and sensorial impressions, verbalization of characters' wishes and intentions, verbalization of characters' thoughts, verbalization of characters' mood and feelings and temporal adverbs marking suddenness $(\alpha=.76)$. This is predomonantly a content-based factor, although the last item belongs to the linguistic category. A less stable factor related to mere linguistic aspects, including the use of onomatopoeia, iteration and intensifiers $(\alpha=.61)$, characterizing an expressive and somewhat mimetic linguistic style was also identified. Reported speech and the verbalization of characters'
compulsive actions, found very rarely in the sample, appear to be isolated factors, not correlating with any of the others.

In an attempt to ascertain the network of possible correlations between the event-structural and affective markers, the factors mentioned above were transformed into independent variables, and non-parametric correlation tests were conducted. Exposition shows no relation to the other variables, although the temporal category correlates with the affective factor described above ( $\tau=.476 ; \mathrm{p}<.01$ ) and with the mimetic linguistic factor ( $\tau=.380 ; \mathrm{p}<.01$ ). Additionally the cause-effect complex correlates with both the affective ( $\tau=.562 ; \mathrm{p}<.01$ ) and mimetic factors ( $\tau=.462 ; \mathrm{p}<.01$ ). Finally, this last factor also correlates with the use of temporal markers ( $\tau=.380 ; \mathrm{p}<.01$ ). Thus, these productions are strongly linked through their structural and affective features simultaneously, defining narrative proficiency as polarization of expressivity and textual-organizational forms.

The specific use of language to convey expressivity was dealt with in a separate way, as two lexical categories were predicted in the original model - expressive verbs and modifying adjectives. For this study, and after a thorough consideration of the nominal vocabulary applied by the students, a third category was included and collected, called expressive nouns. For these three lexical-expressive categories, both types and tokens were listed and analysed. A factor analysis revealed that they all form one single and extremely stable factor with a $\alpha=.94$ value.

The correlations of this factor with the other described above shows, once again, a series of networks. It correlates with the mimetic linguistic category ( $\tau=.518 ; \mathrm{p}<.01$ ), with temporal markers ( $\tau=.478 ; \mathrm{p}<.01$ ), with cause-effect ( $\tau=.603$; $\mathrm{p}<.01$ ) and affective markers ( $\tau=.650 ; \mathrm{p}<.01$ ).

Thus, although this does not exactly reflect Boueke and Schülein's original model, most of the categories were revealed to be stable and relevant factors with an extended network of highly significant correlations.

The analysis of the German dictations revealed a number of differences in relation to the texts. In general, the factors were not as stable, although they mostly confirm the data found for the texts. The most stable factor was again lexicalexpressivity, scoring $\alpha=.85$.

The oral productions confirm the factors of exposition ( $\alpha=.71$ ), temporal markers $(\alpha=.67)$ and the cause-effect complex ( $\alpha=.80$ ). However, the constellation of affective markers is somewhat different in this instance, as there were fewer dialogues and less reported speech or verbalization of thoughts, which are actually more typical of a written style. One factor was found including the items verbalization of characters' perceptions and sensorial impressions, verbalization of characters' compulsive actions, iteration and temporal adverbs marking suddenness ( $\alpha=.68$ ).

Among these factors, several correlations were found; the category of temporal markers correlates with exposition ( $\tau=.321 ; \mathrm{p}<.05$ ) and with the cause-effect complex ( $\tau=.375 ; \mathrm{p}<.01$ ). The affective factor correlates also with the cause-effect complex ( $\tau=.353 ; \mathrm{p}<.01$ ). Yet again the most stable factor was that of lexical expressiv-
ity ( $\alpha=.80$ ), correlating with temporal markers ( $\tau=.332 ; \mathrm{p}<.01$ ), the cause-effect complex ( $\tau=.326 ; \mathrm{p}<0.01$ ) and with affective markers ( $\tau=.296 ; \mathrm{p}<.05$ ).

There are a number of inter-correlations between the factors of the different productions, although none were found regarding the dictations. On the other hand, texts and oral productions are related to each other, particularly through the categories of affective markers, cause-effect complex and mimetic language. The different expositions have no correlation with each other and tend to show negative relations to the other categories.

As to the performance of the different language groups, the textual productions show that monolingual German students have a clear advantage in relation to lexical expressivity. However, regarding event-structure and affective markers, there are no significant differences between the groups, although Group A students show evidence of a slightly better performance. The results of the dictations are somewhat low for all the groups and no clear differences were found.

The oral productions, however, reveal very different results in all three analysed categories. The students in Group B (who had always achieved the lowest results from the start of the evaluation of the Hamburg bilingual classes) showed a slight advantage. This was particularly visible regarding event-structure markers and lexical-expressivity. Groups A and D displayed comparable results.

As for the effects of continuous bilingual education, the results between the two groups as regards the textual productions were very similar, as shown in Figure 29. In the texts, the students that have attended the programme since the beginning show a slight advantage, particularly regarding event-structure and affective markers, although this practically disappears in the oral productions.


Figure 29 - Mean of narrative competence features in the German textual productions according to the duration of attendance of the bilingual programme.

## Portuguese language

The Portuguese language displays a number of differences in relation to the findings for German. The textual productions show a stable exposition factor $(\alpha=.75)$, as well as a very stable lexical-expressivity factor ( $\alpha=.91$ ), including the category of expressive periphrastic constructions created for this language, which may indicate that this could be a significant item in a model developed for Portuguese. Taking
into consideration the remaining affective markers, there is once again a split into two weaker factors; on the one hand, the cause-effect complex, involving consequence and adversative connectors $(\alpha=.65)$, and on the other, a more temporal factor, including posteriority, simultaneity, non-adverbial time expressions and explanations $(\alpha=.61)$.

These factors are strongly interconnected through a network of correlations. Lexical-expressivity and temporal markers, for instance, correlate with all other categories and with each other, while the cause-effect complex reveals only two correlations and exposition one.

The dictations display analogous results. The exposition factor is again stable ( $\alpha=.73$ ), while the event-structure and affective markers again reveal mixed factors; the cause-effect complex includes consequence and adversative connectors ( $\alpha=.73$ ) and the temporal factor comprises simultaneity, posteriority and non-adverbial temporal markers ( $\alpha=.-67$ ). As for lexical expressivity, unlike the other forms, this seems to be clearly divided into two main lexical factors; verbal and nominal items on the one hand $(\alpha=.74)$ and on the other, a very stable adjectival factor $(\alpha=.91)$. Nonethelesz<s, very few correlations were found between these categories.

The oral productions, as with German, display more solid factors and, with them, a more intense network of correlations. Once more there is a factor comprising the items of exposition ( $\alpha=.73$ ), an item including features of the cause-effect complex $(\alpha=.65)$ and a less firm temporal item $(\alpha=.60)$. The lexical category, as in the dictations, is strongly divided into a verbal and nominal expressivity factor ( $\alpha=.66$ ), on the one hand, and a very strong adjectival category ( $\alpha=.97$ ) on the other. The correlations between these factors are all at a $\mathrm{p}<0.01$ level and are mostly linked through temporal and cause-effect markers, although the category of exposition and both lexical categories also present some correlations.


Figure 30 - Mean of narrative competence features according to the duration of attendance of the bilingual programme as regards Portuguese textual productions.

When considering the performance of the different language groups in textual productions, comparable results regarding event-structure and affective markers were found. However, in lexical expressivity, the students of Group D display a clear advantage in relation to the others, while Group A has the weakest results. The oral productions also exhibit a somewhat balanced performance between the three
groups and unlike the textual productions, Group A's disadvantage here concerns event-structure and affective markers and not lexical expressivity. Hence, there is a more consistent use of event-structural markers in the textual productions than in the oral data, although affective markers showed a similar pattern. In addition, lexical expressivity seems to be more frequently used in the texts, particularly by the bilingual Portuguese students. The analysis of the effects of the continuous bilingual education programme reveal an advantage for the students that have attended it for six years in all categories and in textual and oral productions. In the textual productions this difference is only significant in the case of lexical expressivity, while in the oral productions there are no significant differences (see Figure 30 for the case of the textual productions).

## Intra- and interrelations between categories

Regarding the narrative competence features in both languages, there are very few correlations between the languages and they are all related either to the lexical expressivity factor or to exposition. More concrete items concerning temporal organization or cause-effect relations do not correlate with each other and present a set of negative connections, hinting at the language specificity of such skills. However, dissimilarity of the exposition and the ability to convey a certain degree of expressivity to a production seem to be intra-linguistically transferable aptitudes. Thus, this contradicts the concept of a general narrative competence as common underlying proficiency.

## Suggestions for further development of Boueke and Schülein's model

In the process of analysing the narrative productions of the sample, a number of aspects were found which were not taken into consideration by Boueke and Schülein (1995) but which seem to be of relevance. As the authors analysed other age-groups and used a completely different data collection method, a brief digression will be made on some of the narrative features found in the sample and not contemplated in this model. Furthermore, since the current project is set within an educational context, it is worth remembering that the type of narrations arising might include different aspects. Taking into account their complexity, the aspects mentioned below could all be included in Boueke and Schülein's fourth and last narrative level.

One aspect found in some of the productions was named textual framing. ${ }^{165}$ It can be defined as a feature belonging to the macro-structural ${ }^{166}$ level of the produc-

[^86]tion and it involves a circular closing of the narrative while explicitly alluding to its beginning. It can however be distinguished from Labov's notion of coda, i.e., the resolution of the narrative with the marking of its end, a feature used by many of the students in our sample. In order to illustrate this category, some examples of the productions follow.

In Leonardo's German dictation, the framing was achieved through the reference to the park where the family went to take pictures. He mentions and names it in the first sentence and returns to this setting at the very end of the dictation in order to link it to the beginning. In a similar way, Manuela's dictation uses the name of the family as connecting feature between the beginning and the end of her narrative.

## Der Mann und die Kinder

Eines Tages ging die Familie Schweiger zum Park spazieren. Der Vater Carlos wollte Fotos von Fabian und Lisa machen. (...) Und das war die Familie Schweiger.
[One day the Schweiger family went for a walk in the park. The father, Carlos, wanted to take photos of Fabian and Lisa. (...) And this was the Schweiger family.]

Manuela, Dictation (Group B)

## Die Kamera auf der Wiese

Eines sonnigen Mittags ging Vater Horst mit seiner Tochter Catarina und seinem Söhn Arne in den Park Sonnenbank. Vater Horst wollte ein Foto für die Familie, ins Familienphotoalbum einkleben um die Ereignisse im Park nie zu vergessen.
(...) Die Kinder liefen zur Kamera und hoben sie auf und machten ein Foto vom Vater Horst und zeigten es Mama Angelika und lachten alle zusammen. So ging der Tag im Stadtpark zu Ende.
[On a sunny day at noon, Horst went with his daughter Catarina and his son Arne to the Sonnenbank park. Horst wanted a photo for the family, to stick into the family photo album, in order not to forget the events in the park.
(...) The children ran to the camera and grabbed it and took a photo of father Horst and showed it to their mummy, Angelika, and every one laughed together. Thus the day came to an end in the Stadtpark.]
Leonardo, Dictation (Group A)

Other students, however, achieve the framing effect through the title given to the narrative. Lúcio and Silja noticeably make use of the title to close their narrative and link the end to the beginning.

## Der Mann im Blumenbeet

Es war einmal zwei Kinder die mit ihrem Vater in den Park gingen.
(...) Und dieses Foto wird den Titel tragen: Der Mann in Blumenbeet.
[The man in the flowerbed
Once upon a time two children went with their father to the park (...). And this photo will have the title: The man in the flowerbed.]

Lúcio, Text (Group A)
Vater im Blumenbeet
Jennifer und Décio gehen mit ihrem Vater in den Park.
(...) Jennifer nahm sie schnell in der Hand und machte ein Foto von "Vater im Blumenbeet".
[Father in the flowerbed
Jannifer and Décio go with their father to the park (...). Jennifer took it quickly and made a photo of the "father in the flowerbed".]

Silja, Dictation (Group A)

In the Portuguese productions, there were fewer textual framings. Alfons' text shows the use of the park at the beginning and in the last sentence, the explicit linguistic feature "outra vês [once again]", indicating that the action repeats itself once again. In addition, he also uses a very frequent coda, by adding the word "fim [the end]".

Pai entre flores

Era uma vês uma familia que foi brincar ao parque.
(...) E depois o Pai foi outra vês ao parque tirar a foto mas olhou para tras. Fim
[Once upon a time a family went to the park to play (...). And then the father went again to the park to take a photo but looked back. The end.]

Alfons, Text (Group D)

Another narrative feature present in some productions was the inclusion of metanarrative features. Leonardo's text, which has been already quoted above, is the best example, as he moves between the narrative perspective and the narrator's intervention. In the example below, it can be seen that he first explains that his fictive narrator is also a part of the story and later on actually imagines a sort of dialogue between the reader, who wants to know the rest of the story, and the narrator, who wants to talk.
(...) Hach ja ich bin der arzele ich werde Manch mal in die gechite rein Plapern aber es wird nicht nerven.
(...) Der Vater fotografiert fast sechs stunden als der Vater zurückging sah er nich das hinter in das Blumenbeet war er lief dereck warten sie mal der die geschte gerade lesen will jetz kommt mein lieblings Spruch Lauf nie in das offene Messe oder noch einen sei nie okay okay. Ich erzahle weiter also wo waren wir stehen geblieben hach ja.
[(...) Oh I am the narrator I will some sometimes interrupt the story, however, it will not irritate.
(...) The father took photos for nearly six hours as the father went back he didn't see that behind him there was a flowerbed he ran direct wait a minute you who just wants to read now my favourite saying comes never run to the open knife or one more is never okay okay. I will go on telling where had we stopped oh.]

Leonardo, Text (Group A)
(...)

M: also eh der Titel glaub ich ist das eh verunglückte Foto [I think the title is the accidental photo]
I: aha
M: würde ich mal sagen - also eh/darf ich den G/ also den Figuren auch Namen geben? [I would say - may I name the characters?]
I: alles
M: ach so - ehm also das Mädchen nenn ich einfach mal Zoe - und den kleinen Jungen Zec hab ich letztens auch gemacht
I: ehm
M: also Zoe Zac und Papa sind also in Park gegangen (...)

The oral productions are full of meta-narrative allusions, although in this case they are not necessarily quite so literary. Many of students, before and during their narrations, felt the need to clarify some of the aspects regarding the task. As seen in Miguel's example, he announces that he will give a title to the story and asks if he can name the characters. Only when these narrative details are cleared does he embark upon the narration. This sort of explicit narrative intervention happens often in the oral productions, where the students can actually interact with the interviewer.

A few students made meta-literary allusions, although this did not occur very often. Héctor, for example, chose the names Romeo and Juliet for the characters in his textual production.

## Der Spaziergang

Es war einmal eine Familie die ein Spaziergang machen wollte und eine Kamera dabei hatte. Der Vater sagte zu Romeo und Julia (...)
[Once upon a time there was a family who wanted to take a walk and had a camera. The father said to Romeo and Julia (...).]

> Héctor, Text (Group B)

Finally, a number of figures of speech were also found in some productions, predominantly used for emphasis, freshness of expression, or even as a way of rebelling against the task itself. The latter was mostly achieved through the use of irony and, more concretely sarcasm, through which it became possible to mock the situation in a humorous way. In Leonardo's German dictation and oral production, some of the described features are allusions to brand names or technological features, which are solely used to mock the narrative situation and provide it with a humorous tone.
(...) Doch in diesem Moment viel Vater Horst mit seiner schönen G-Star Hose ins staubige Blumenbeet hinein. Die FotoKamera mit Teleobjektiv mit 500 Pixel viel in die Wiese. Die arme Kamera. (...)
[(...) But in that moment father Horst fell with his nice G-Star jeans into the dusty flowerbed. The camera with the 500 pixel lens fell on the grass. The poor camera.]

Leonardo, Dictation (Group A)

K: ja wenn da jetzt seine Levis Hose wurde dreckig - seine Nike Schuhe auch - sein Polohemd war dann mit Erde voll - ja - alles [and his Levi jeans were dirty - and his Nike shoes also - his polo shirt was full of dirt]
I : alles?
K: mhm
I: ganz sicher?
K: und die Digitale Kamera mit zweifacher Zoom ist heil geblieben - das Happy End [and the digital camera with double zoom lens was saved - a happy ending]
I: gute Qualität
K: ja [lacht]
Leonardo, Oral (Group A)

In addition, Denis includes a sarcastic and humorous aspect in both oral produtions, as he mentions that the photo taken will be auctioned.

D: ja vielleicht verschicken sie das ins Internet [maybe they send it over the internet]
I: [lacht] ja? Wo/ wohin?
D: verkaufen sie bei/ versteigern sie bei Ebay [they sell it or auction it on ebay]
Denis, Oral (Group D)

I: e o que é que depois fizeram à fotografia? [and what did they do with the photo?]
D: ahm - foram lá vender ao ebay [they went and sold it on ebay]
Denis, Oral (Group D)
The students also made use of other figures of speech. Below are some examples:

- Listing - "Er hat dort sehr viele interessante sachen gefunden, bäume, blumen, wiesen, häuser, tiere alles ausser Kinder" [There he found a lot of interesting things, trees, flowers, lawns, houses, animals, everything but children]. Larissa, Text
- Alliteration of occlusive consonants - "Die Sonne blitzte immer wieder zwischen den Bäumen hindurch und brachten Emmas Haare zum glitzern" [The sun glimmered through the trees and made Emma's hair shine]. Silja, Text
- Emphatic repetition - "Eles riram, riram e riram sobre a tal fotografia" [They laughed and laughed and laughed about that photo]. Ana, Dictation
- Neologism with rhyme - "La foram os dois jovens contentes e florentes" [And off they went the two young people happy and flowery]. Maria, Text

It can thus be concluded that there are a number of features in the stories narrated by bilingual children of this age-group in an educational setting that were not included in Boueke and Schülein's model on the acquisition of narrative skills. These are mostly of more literary nature and were found across all productions and in both languages. However, they were more common in the German texts. It should thus be an aim of further research to speculate on a possible application of the model in school contexts and with bilingual narrations.

### 3.2 Cognitive academic language

## German language

When analysing the items described below that make up the category relative to cognitive academic language, it becomes apparent that they generate a web of complex relations.

In the German texts, the use of nominalization correlates with the use of attributes ( $\tau=.393 ; \mathrm{p}<.05$ ), while sentences relating to the subjunctive mode correlate with the use of compound words ( $\tau=.340 ; \mathrm{p}<.05$ ). A factor analysis identified one stable factor and one isolated item; the use of nominalization, compound words, attributes and subjunctive attained $\alpha=.80$, while the passive voice and present participles work as isolated factors.

The dictations also present a number of correlations among the items of this category. The use of compound words correlates with the passive voice ( $\tau=.480$; $\mathrm{p}<.01$ ), for example. The factor analysis revealed a similar constellation of items as found for the texts; the use of nominalization, compound words and attributes attained $\alpha=.74$. A second, and less stable factor was additionally found in these productions; the constructions with participles and the use of subjunctive have $\alpha=.65$. Once again, the use of passive voice was found to be a single factor.

The oral productions present the nominalization as the most reliable category. It correlated with the participles ( $\tau=.638 ; \mathrm{p}<.01$ ), the passive voice ( $\tau=.463 ; \mathrm{p}<.01$ ) and subjunctive ( $\tau=.361 ; \mathrm{p}<.05$ ). The factor analysis indicates a $\alpha=.74$ for the items of nominalization, compound words and attributes. The others, as in the previous cases, are isolated factors.

These findings, although taking into consideration the fact that the sample is small, lead us to assume the existence of cognitive academic language features for a narrative act, which are not only present in the actual act of writing but can also be found in a more elaborate oral style. The most reliable linguistic items characterizing this narrative academic language are the use of nominalization and compound words. Less consistent are the employment of the subjunctive mode and of attributive constructions, as isolated factors the use of passive voice and participial constructions were identified.

When analysing the link between these categories and the other aspects of the analysis design, the items mentioned above, being the most reliable, were also those correlating with the other categories. In the German texts, the use of motivation behind the characters' actions correlated with the use of compound words ( $\tau=.429 ; \mathrm{p}<.01$ ), with attributes ( $\tau=.410 ; \mathrm{p}<.01$ ) and with the subjunctive mode ( $\tau=.305 ; \mathrm{p}<.05$ ). Concerning lexical range, these three categories were again the most significant link; the verb types correlated with the use of compound words ( $\tau=.583 ; \mathrm{p}<.01$ ), attributes ( $\tau=.430 ; \mathrm{p}<.01$ ) and the subjunctive mode ( $\tau=.383$; $\mathrm{p}<.01$ ). The noun types offered a very similar correlation network, while the adjective types showed some variation; they correlate with the use of compound words ( $\tau=.566 ; \mathrm{p}<.01$ ), attributes ( $\tau=.394 ; \mathrm{p}<.01$ ) and subjunctive ( $\tau=.400 ; \mathrm{p}<.01$ ), but also with nominalizations ( $\tau=.362 ; \mathrm{p}<.05$ ) and participles ( $\tau=.340 ; \mathrm{p}<.05$ ). In these textual productions, the most remarkable fact was the absence of correlations between any of these features of cognitive academic language and task accomplishment. This may lead us to hypothesize about the existence of two different types of cognitive common underlying proficiency, which are not necessarily related to each other; on the one hand, the ability to cope with a task within a school setting, which, as seen above, is involved in all productions and both languages, and on the other, the proficiency in academic discourse, related to lexical aspects and the degree of specification of certain narrative events.

In an attempt to expand this hypothesis, the correlations between the features of cognitive language were also verified for the remaining categories of syntactical nature. In this respect, a correlation was found between the types of sentence con-
nectors used and the use of compound words ( $\tau=.394 ; \mathrm{p}<.01$ ), as well as attributes ( $\tau=.481 ; \mathrm{p}<.01$ ). Concerning the type of sentence construction, almost no significant correlations were found between the use of these linguistic features and coordinated sentences. However, when testing the two more complex forms of syntactical constructions (one main clause followed by one or more subordinated clauses with possible use of direct speech), a number of correlations was found; with the use of compound words ( $\tau=.443 ; \mathrm{p}<.01$ ), attributes ( $\tau=.541 ; \mathrm{p}<.01$ ) and subjunctive mode ( $\tau=.310 ; \mathrm{p}<.05$ ).

By combining these features into one general item, which was entitled total of CALP features, the network of correlations becomes even more reliable, as this one overall category correlates with all others in the analysis design, except as suggested above with task accomplishment. In order to develop the current analysis, the same procedure was conducted for both dictations and oral productions.

The dictations, as in the analysis conducted above, offer a less intricate or significant network of correlations. These are, however, similar to those already mentioned for the texts, compound words and attributes being the most reliable categories. Yet again the category of task accomplishment presents no correlations with these academic linguistic features. In fact, the majority of the relations are negative and there is even one negative significant correlation with the use of the subjunctive mode ( $\tau=.-358 ; \mathrm{p}<.05$ ). This may lead us to confirm the hypothesis above.

Nevertheless, regarding the oral productions, a rather different picture can be found. Contrary to the expectations implied in the BICS and CALP distinction, the network of correlations between the CALP linguistic features and the other features is the broadest in this instance. However, three main differences can be identified in relation to the other two types of productions:

- task accomplishment presents a wide range of correlations with the majority of the CALP items; with nominalization ( $\tau=.360 ; \mathrm{p}<.05$ ), with attributes ( $\tau=.491$; $\mathrm{p}<.01$ ), participles ( $\tau=.310 ; \mathrm{p}<.05$ ), and passive voice ( $\tau=.376 ; \mathrm{p}<.01$ );
- there are no correlations with the use of compound words and the tendency is towards a negative relation between these features;
- there were no correlations found with the syntactical categories.

On the other hand, and apart from task accomplishment, motives behind the characters' actions and nouns, verbs and adjective types offer a vast network of correlations with nominalization and attributes in all cases, and in $50 \%$ of the cases, with the subjunctive, passive and participles.

Yet, and equally contradictory, at first sight, the BICS and CALP distinction, the most striking correlations were those related to the use of colloquial and jargon expressions, representative of a more oral and informal speech. They in fact correlate with nominalization ( $\tau=.390 ; \mathrm{p}<.01$ ), attributes ( $\tau=.516 ; \mathrm{p}<.01$ ), passive voice ( $\tau=.392 ; \mathrm{p}<.01$ ) and additionally with the more general CALP category ( $\tau=.441$; $\mathrm{p}<.01$ ).

What do all these numbers and relations tell us about the nature of CALP in the narrative German language and for written and oral speech forms? Some concluding remarks on this question follow:

- there are significant and fundamental differences between the manifestation of the CALP between the written and oral forms. The dictations display more similarities with the texts than with the oral productions;
- nevertheless, there is evidence for the existence of a CALP narrative style in all types of productions:
- in the texts, there was no colloquial style found, as in the productions conducted at the end of the fourth grade. There is an elaborate style with three main items; nominalization, compound words and attributes, and there are two isolated factors - passive voice and participles - as well as one not very solid factor - subjunctive mode;
- in the oral productions, there is also no solely mere colloquial style; instead there is the use of colloquial expressions by a considerable number of the students. However, these are precisely the ones to employ the highest amount of CALP linguistic features, such as nominalization, attributes and passive voice constructions. These features, together with the use of participles, comprise an elaborate oral style. Again the use of the subjunctive is an independent fairly unreliable factor;
- apparently, after six years of coordinated bilingual education, the students are able to use features typical of oral discourse, such as jargon, while simultaneously constructing academic narrative productions. In other words, they are aware of the nature of oral discourse and its nuances;
- additionally, the oral form allows them to connect their linguistic academic knowledge with their cognitive skills in solving school tasks. This probably derives from the fact that in the bilingual classroom oral language is very practised (cf. Chapter 10).


## Portuguese language

In Portuguese, the use of the passive voice, nominalization and gerund act as main binding categories, correlating at a significant level with several of the other items, although in different ways depending on the type of production.

In the case of the texts, nominalization correlates with the use of passive voice ( $\tau=.485 ; \mathrm{p}<.01$ ) and subjunctive mode ( $\tau=.297 ; \mathrm{p}<.05$ ). The category of the gerund shows negative correlations with all others categories, hinting at an independent factor in the written productions. As the overall category of the CALP, combining all the referred items, showed very high correlations with all of them, except the gerund, a factor analysis was conducted and revealed that they form, in fact, one single factor, although this is not very solid ( $\alpha=.62$ ). Likewise, the dictations showed a correlation between the use of passive and subjunctive ( $\tau=.473 ; \mathrm{p}<.05$ ),
despite the fact that the overall CALP category worked once again as binding feature. The factor analysis of all items displayed a value of $\alpha=.70$. The oral productions have a more expanded network of single correlations between the items; the use of gerund correlates with nominalization ( $\tau=.532 ; \mathrm{p}<.01$ ) and participle constructions ( $\tau=.356 ; \mathrm{p}<.01$ ). The latter also correlates with the subjunctive mode ( $\tau=.325 ; \mathrm{p}<.05$ ). The passive voice, similar to the use of gerund in the textual productions, had negative relations to the other items. Hence, the factor analysis without this one item showed a relatively solid value ( $\alpha=.73$ ).

Hence as for the German language, in Portuguese there is also clear evidence of concrete CALP-related linguistic features in all three types of productions, although these differ slightly in their nature. Most of the features overlap with those found to be significant for the German language. A number of conclusions can be made regarding the nature of narrative Portuguese CALP at this age level:

- in the textual productions no colloquial style was found, not even in the case of the students who, at the time of data collection, had only approximately one year of literacy in this language. An academic style can be categorized by the use of nominalization, passive voice and subjunctive mode. As a possible manifestation of an academic narrative, the use of gerund as subordinating feature was identified;
- the dictations show a comparable picture to that revealed by the texts, with the exception of the reduced presence of gerund;
- in the oral productions, unlike what happened with German, there is no colloquial style whatsoever. The category comprising all conversational and jargon expressions shows systematically negative correlations with the other items and also with the CALP overall category. In these productions, the elaborate style seems to be formed by the use of nominalization, participles, subjunctive mode and gerund, while the isolated, somewhat more academic factor is the passive voice.

When looking at the relation between these items and the rest of the categories included in the analysis design, similar results to those of the German language were found. In the case of the texts, there were no correlations with task accomplishment and the general tendency is towards negative associations with all items. However, the other main categories show a network of various complex correlations, explained below:

- motivation behind the characters' actions correlates with the use of attributes ( $\tau=.388 ; \mathrm{p}<.05$ ), subjunctive ( $\tau=.317 ; \mathrm{p}<.05$ ), gerund ( $\tau=.274 ; \mathrm{p}<.05$ ) and, more manifestly, with the overall CALP category ( $\tau=.495$; $\mathrm{p}<.01$ );
- the verbal types category correlates with attributes ( $\tau=.386, \mathrm{p}<.01$ ), the subjunctive ( $\tau=.233 ; \mathrm{p}<.05$ ) and also with the overall CALP category ( $\tau=.469 ; \mathrm{p}<.01$ );
- The adjective types category correlates with attributes ( $\tau=.260 ; \mathrm{p}<.05$ ) and with the overall CALP category ( $\tau=.344 ; \mathrm{p}<.01$ ).
- the noun types category correlates with attributes ( $\tau=.289 ; \mathrm{p}<.01$ ), and the overall CALP category ( $\tau=.360 ; \mathrm{p}<.01$ );
- types of sentence connectors correlates with attributes ( $\tau=.325$ : $\mathrm{p}<.01$ ), subjunctive ( $\tau=.280 ; \mathrm{p}<.01$ ) and the overall CALP category ( $\tau=.442 ; \mathrm{p}<0.01$ );
- the more complex sort of syntactical connection (one main clause with several subordinated clauses) correlates with attributes ( $\tau=.398 ; \mathrm{p}<.01$ ), the subjunctive ( $\tau=.362 ; \mathrm{p}<.01$ ), participles ( $\tau=.301 ; \mathrm{p}<.05$ ) and also with the overall CALP category ( $\tau=.442 ; \mathrm{p}<.01$ );
- with the less elaborate types of sentence connections, there were no significant correlations found.

Contrary to what was found for the German language, the dictations show more similarities with the oral productions than to the texts. An overview of the key findings centred in the main similarities and differences in relation to the texts is given below:

- in both productions, task accomplishment shows significant correlations with some of the linguistic items and with the overall CALP category ( $\tau=.550 ; \mathrm{p}<.01$ in the dictations and $\tau=.293 ; \mathrm{p}<.01$ in the oral productions). This confirms the findings for the German language concerning the fact that the oral form allows the students to connect their specific linguistic academic knowledge with their cognitive skills in solving school tasks in a way that has not been found in the texts;
- attributes is the strongest item, correlating at a highly significant level with almost all categories in both productions, as in the texts;
- the overall CALP category also correlates with all other categories at a highly significant level, a fact that validates it as an instrument;
- specific to the dictations is the absence of correlations with nominal and adjectival types, as well as with types of sentence connectors;
- particular to the oral productions is the role of the gerund, correlating with almost all items. Here the correlations with the types of nouns, adjectives and sentence connectors are also numerous;
- colloquial expressions displays mostly negative correlations in relation to these categories of the analysis design.


## Intra- and inter-relations between the categories

The single items of the CALP category offer very few positive correlations between the different productions and likewise between both languages. The positive correlations exist mostly between items of the same nature. For example, the use of compound words in the texts correlates with the same item of the dictations ( $\tau=.403 ; \mathrm{p}<.01$ ), and likewise for participles ( $\tau=.555 ; \mathrm{p}<.01$ ). However, in German, the correlations between texts and dictations in relation to the oral productions are mostly negative. In Portuguese, the majority of the correlations occur between dictations and oral productions, although there are also few of them.

Similarly, there are few correlations between the individual items between languages. However, a number of highly significant correlations occur when analysing the overall CALP category of the several productions. The texts are linked by predominantly significant negative correlations; yet in the oral productions, they correlate with each other at a very significant level ( $\tau=.396 ; \mathrm{p}<.01$ ) and in the dictations, at a significant level ( $\tau=.335 ; \mathrm{p}<.05$ ).

This can lead us to conclude that the specific features identified in the current study as characteristic of an academic style are both language and medium specific. A common underlying proficiency at such a linguistically specific level and unrelated to cognitive skills typical of educational settings is made possible in oral discourse or at least in a form where the students are not forced to cope with writing themselves.

Considering the results of the different groups regarding the use of these items, in German, the monolingual German students perform significantly better in the texts - as also recorded above - but in the dictations, although the same trend is found, there are no significant differences between the groups. As for the Portuguese students, in the texts this group made very few use of the items of cognitive academic nature and, although recurring in some cases to these items in the dictations, the performance in this area is still significantly inferior in relation to the other groups, though nevertheless shows that the knowledge of these forms is at hand. Groups B and D are almost indistinguishable from each other.

However, the most surprising results derive from the oral productions, where the results in both languages are significantly higher in relation to the other productions and for all the groups. This higher amount of CALP features can be seen as a confirmation of the hypothesis formulated above about the role of the oral discourse as a possible start for a common underlying proficiency.

In the German language, there were no differences found between the performances of the three different groups, once again providing evidence for the cognitive existence of the CALP features. The Portuguese language still reveals the disadvantage of the monolingual German students in relation to this aspect, although their performance is significantly better than that of texts and dictations.

The results regarding the influence of the programme in the use of cognitive academic means are equally relevant. In all productions and languages, the students who have attended the bilingual programme for six years perform better than the ones that entered later. The difference in performance is not so marked in the case of dictations and oral productions, yet in the texts it is significant in both languages.

Equally noteworthy is the performance gap between the languages, since the results attained for the German language reveal a superior proficiency with reference to this aspect. Nonetheless, the fact that in both textual productions the students who had attended the programme from the beginning achieved a significantly better performance (precisely where it seems most difficult to attain it and where it is most relevant for educational contexts) provides evidence of the clear advances of a coordinated and continuous dual language programme.

## 4. Results comparison for the three groups of the sample

In order to compare the results achieved by the Portuguese-German class learning in the dual language programme at the Rudolf Ross School, two control groups were added to the original sample, as mentioned above (see Chapter 5). As they performed the Tulpenbeet-tool only in form of text and oral production, the following section will not include a comparison of the dictations. Furthermore, for the sections concerning narrative extension and complexity, and syntax, only the texts will be taken into account, as happened in the previous analysis (Section 3).

### 4.1 Narrative competence

## Extension and complexity

As regards the length of the productions of the three groups in German (cf. Figure 31), it becomes immediately apparent that the bilingual Portuguese-German students attending the dual language programme since for six years display a clear advantage over the other bilingual students that make up this sample. The gap between this group and the bilingual students without explicit bilingual education is particularly significant. The students who joined the bilingual class in the preceding two years also presented a substantial advantage over this group but do not yet produce a comparable amount of text as the students who attended the programme since its beginning.


Figure 31 - Mean of total of words used by the three groups in German.
When considering the Portuguese language, the differences between the group that had had six years bilingual education and the others are even more striking. As shown in Figure 32, the simple size of the productions is significantly bigger than in all other groups. What is surprising is that the monolingual Portuguese students
show a slight disadvantage in relation to those students who are attending the bilingual programme for a maximum of two years. This result is even more unexpected when taking into consideration that some of these students were not even literate in this language prior to entry into this class. Indeed the monolingual Portuguese students are almost indistinguishable from the bilingual students in submersion classes, who, as in the case of the German language, display the smallest productions of all groups.


Figure 32 - Mean of total number of words used by the three groups in Portuguese.
As this section focuses on the bilingual students or on those who entered the German school system speaking only Portuguese, an analysis of language groups will exclude the German monolingual students. When considering the performance in German of Groups B and D, we see for the first time a clear advantage demonstrated by the students of Group B, particularly those who attended the programme from the beginning. However, even those who came into the class after primary school manage to attain similar results to the bilingual students in the programme. The latter present results not significantly lower than those of Group B. The submersion students, as mentioned above, have significantly lower results than these other two groups.

The differences in the MLS are not significant in any of the languages. They show the same tendencies mentioned earlier but with small differences both between the groups and the languages.

## Cognition and "literariness"

In the following analysis no correlations will be mentioned between the performance of the three groups as very few were found and those were not of interest. As the two strongest items in this category were revealed to be motivation behind the characters' actions and task accomplishment, as in the results presented in the previous section, these will be the starting point for the comparison between the groups.

In German, the bilingual students in submersion classes and the students who had entered the bilingual programme recently performed comparably in terms of creating texture through motives, with a slight advantage demonstrated by the students attending the programme. This level was attained despite the fact that the group that had recently joined the programme included three monolingual Portuguese students, who had very limited proficiency in German at the time of entry.

The bilingual students that had attended the programme continuously, including four Group B students, performed significantly better than the others in both texts and oral productions. It is, in fact, in this sort of production that the effects of the dual language programme are more visible, as already suggested above. Here the performances of both groups of students in the programme were significantly better than those of the students in submersion classes, who managed to perform even worse than in the textual productions.

When the performance of these groups was analysed for task accomplishment, the results were similar to those found for motivation; the group of continuous bilingual education students attained clearly higher results than the other two groups, particularly concerning the textual productions. Once again, the oral productions display the biggest gap in the group performance, with a significantly lower performance demonstrated by the group of students in submersion classes and a comparable one between the two groups of students attending the programme.

In the Portuguese language, the results for the bilingual group in submersion classes and the bilingual group with recent bilingual education are similar to those found in German in the case of motivation behind the characters' actions, for both types of productions. In the textual productions, the monolinguals in Portugal and the bilinguals that had had continuous bilingual schooling are almost indistinguishable from each other, although the latter tended to achieve higher results, despite including the students from Group A.

It is yet again in the oral productions that the biggest discrepancies are noticeable. The two groups of students attending the programme, particularly those with continuous dual language education, perform significantly better than the others, especially in relation to the monolingual group, which attained the weakest results of all groups. This may be due to the sort of teaching method used in Portugal, although there are no data concerning this aspect. Nonetheless, it can be said that the students attending the programme do have an advantage concerning their oral data, which is confirmed by the amount of time dedicated to oral language within the programme (cf. Chapter 10).

As regards task accomplishment, the differences in the textual productions disappear, as the performances are very similar to each other among all groups. The most substantial differences derive, once again, from the results attained in the oral productions. Here, as in the previous case, the students attending the dual language programme achieved the highest results (despite the fact that the group included five monolingual German students), while the monolinguals students performed
poorest. The students in submersion classes displayed an intermediate standard of performance with almost no distinction between textual and oral productions.

## Cohesion

In terms of sentence connection, the differences between the groups and in both languages are not significant. In all cases, the copulative conjunction "and" was the most used, followed by temporal clauses. The only major difference resulted from the more extensive use of relative clauses by the monolingual students in Portugal, which was considerable in relation to the other groups.

In terms of the number of different types of connectors, and of connectors in general, there were no significant differences between the groups in any of the productions, although the students that had attended the programme from the beginning present a slight advantage.

In Portuguese, the number of types and tokens used is comparable to that used in German. The results of the four groups are similar, with the exception of the monolinguals in Portuguese; their performance in the oral productions was significantly weaker, while the students with continuous bilingual schooling present the greatest advantages.

Vis-à-vis the types of different sentences used, the results confirm that the distribution of the different forms of syntactical constructions does not vary significantly in both languages, with main and coordinated clauses being the preferred forms. Moreover, coordination with one subordinated clause was frequently employed in both languages. There are a number of differences between the groups, but none are very relevant and may be explained through the collected data.

## Lexical range

With respect to the categories that were the basis for the analysis carried out in the previous section, the groups were compared for lexical range through an examination of the verbal and adjectival types and tokens used.

As regards verbs in German, the performance distribution is identical in both productions, as well as for types and tokens; the students that had continuously attended the bilingual programme use both the largest amount and variety of different verbs. They are immediately followed by the students recently included in the bilingual programme and, lastly, by those in submersion classes, who consequently, employ fewer verbs and vary them less.

However, it is with adjectival use that the advantage of the continuous bilingual programme is most visible, particularly with regards to textual productions. Here, in both types and tokens, the students achieve significantly higher results than the other two groups. Fewer adjectives were employed by the students in submersion
classes. In the oral productions all the groups used far fewer adjectives but the trends described above for the verbs were maintained.

The results were comparable for Portuguese. In relation to verb use, the textual productions displayed no differences between the groups, while the oral productions revealed a slight advantage on the part of the students that had continuously attended the bilingual programme. On the other hand, the monolinguals students in Portugal performed worst, as in other categories.

Regarding the use of adjectives, a significantly poorer performance was revealed by the submersion students in both productions, as well as for types and tokens. The other three groups display similar results, although the same slight disadvantage of the monolinguals in Portugal in the oral productions can be observed.

## Proficiency and level

With regard to German, a comparison between bilingual students in submersion classes and those attending the dual language programme with regards to narrative competence reveals that the former is significantly disadvantaged, particularly in the use of affective markers and lexical expressivity. This performance gap is particularly noticeable in the textual productions, although the trend it is also noticeable in the oral data.

As for Portuguese, a more positive performance is once again revealed by the students attending the bilingual programme. In the textual productions, this is manifested mainly in lexical expressivity, while in the oral productions it is predominantly seen in the use of event-structure markers.

Also noteworthy is the generally weak performance of the monolingual students in this narrative category. They use relatively few affective markers and convey less expressivity in their productions than the other groups. The students in submersion classes have a comparable performance in the textual productions to those recently attending the bilingual programme, however in the oral productions, they achieved the lowest results of the four groups.

### 4.2 Cognitive academic language

For the German language, the group of students that had recently joined the bilingual education programme attained intermediate results in both productions, while the bilinguals not participating in the programme achieved the lowest results. However, those students that had attended the bilingual programme since the beginning showed a significantly better performance in both productions. Furthermore, in all three groups, the textual productions displayed a higher number of cognitive academic linguistic features than the oral productions.

Concerning the difference between the groups for the Portuguese language, the bilingual students not participating in a bilingual education programme performed
worst in textual productions. However, their oral achievement is extremely high and comparable to that of the bilinguals with six years of dual language education. Once again, the students in submersion classes presented intermediate results for both productions.

The monolingual Portuguese students and the bilingual students that had attended the programme for six years achieved similar results in their textual productions. Thus, the positive effects of continuous parallel literacy on the development of bilingual proficiency are confirmed: the students that had attended the bilingual programme for six years displayed the same proficiency in cognitive academic discourse in Portuguese as the monolingual students in Portugal.

Moreover, when considering the oral productions, the gap between the performances of these two groups is highly significant, as the monolinguals in Portugal achieved the lowest results of all the groups.

## 5. Conclusions: bilingual narrative competence

The application of the Tulpenbeet-tool to the three groups of the sample enabled us not only to validate the instrument used for analysis (as the three main analysis features, with their various subcategories, were revealed to be useful for conveying a detailed view of the narrative proficiency of bilingual students of this age group) but also to answer the research questions stipulated at the outset.

## Identification and characterization of the bilingual narrative features used by the students

In the current sample, the narrative features found to be of significant use were divided into several categories and were generally valid for both languages analysed. To begin with, the use of literary features, such as suggested by Dehn (1999) and Roth (2003), was of particular relevance. The fact that the students shape the beginning and end of their productions, use direct speech or attribute names to their characters contributes to increased "literariness". As mentioned above, students who made use of more literary features also attained better results in the other categories. Nevertheless, this category needs to be further developed and adapted to suit other age groups.

In terms of cohesion, a feature that is particularly important for narrative productions within this age group seems to be the use of hypotaxical syntactical forms, such as main clauses followed either by one or more subordinated clauses. Students who employed such connection forms, achieved a higher overall performance, particularly concerning academic language items. This corroborates the results found by Roth, Neumann and Gogolin (2007). The clauses identified as the most significant for this narrative task were temporal clauses, introduced by either adverbs or conjunctions. These were the most frequent organizational items and were neces-
sary for the chronological order of events. However, the use of causal and purpose clauses hinted at an advanced narrative proficiency and was found in both languages. Students who made use of two or more of these clauses also attained the highest results in the other categories.

Concerning lexis, it was range of vocabulary, rather than the quantity of verbs, nouns or adjectives, that was revealed to be of significance. The most relevant item for narrative proficiency was adjectival range, thus providing additional information about the nouns or pronouns' referents. In fact, all other constructions which act as noun modifiers, typical narrative features found in the more proficient productions. Examples of such forms were the use of participles, prepositional phrases and both relative and adjective clauses. Thus, features contributing to lexical precision could be identified as typical narrative features within the sample.

However, typical narrative features could be found in the combination of organizational elements, such as temporal or causal adverbs or conjunctions, and particularly expressive vocabulary, used to endow the production with emotionality and vitality. Students who achieved a good performance in this aspect also had more cognitive academic items (see below) in their productions.

As this task was performed in a school context, task proficiency was also assessed. The category of task accomplishment related to all the categories mentioned above, meaning that narrative competence are strongly connected to the way a student deals with a task and how comprehensively $s / h e$ fulfils it.

## Assessment of the development of narrative competence

Concerning the dual language students, where three sets of data were collected within a year, the results show that, in the oral productions (the last to be collected), performance achieved its peak in both languages. Moreover, the differences that originally existed between the language groups are virtually levelled for the first time since the first grade. This increase in performance standard at the end of the sixth grade, particularly for the students that had had parallel bilingual instruction since the first grade, confirms the results of the studies which predict a minimum of six years for such programmes to show positive effects (Thomas and Collier, 1995). The end of the sixth grade can thus be marked as an important threshold for the acquisition of bilingual narrative competence.

## Overlaps between oral and written narrative competence

In an attempt to analyse narrative proficiency in oral and written samples including the cross-over genre of dictations, the inter-relations between these forms was clearly shown. On the one hand, all productions presented similar features of "literariness", lexical range, cohesion, affective and event-structural markers, as well as academic language items. However, texts and oral productions were more closely
related to each other than to dictations, which were rather isolated in some of the analyses. This was particularly true in the case of the literary features and academic language, which can lead to the conclusion that the act of writing or orally coping with a task, typical of educational contexts, fosters "literariness" and academic writing, as this is probably expected by the school. When the act of writing is removed and the focus is put on the task itself, dictations allow an insight into the students' knowledge without including spelling, thus allowing those with apparent less proficiency to display their skills. In particular, for some of the students of Group B, in German, and Group A, in Portuguese, dictations offered an opportunity to show that their proficiency could indeed be compared with that of the other groups and that they often failed in the act of writing itself. The emphasis on content rather than form brought about a higher degree of precision and motivation in productions where these abilities had probably been constrained by the act of writing.

Therefore, the performance of dictations can be seen as a way of attaining proficiency for students that are deficient at writing but conversationally fluent. They can work as an important diagnostic instrument in schools to distinguish between general cognitive insufficiency, which would imply specific fostering, and reduced linguistic proficiency, which would mean that students need time and adequate input to achieve a grade-appropriate level. In the case of bilingual students, the inclusion of the first language, as in the analysed dual language instruction, could also enhance proficiency in the second language.

## Existence of a possible common underlying proficiency

At the cognitive macro-level, the students made use of common underlying skills, so that the category of task accomplishment, largely independent of language proficiency, is closely related in each language, and also within the three productions in each language. However, at a more language-specific micro-level, the sharing of common skills was found within the same language in different productions, and also between languages. Nevertheless, it does not manifest itself at the syntactical level or in some aspects of event-structural markers, where these languages may differ from each other.

## Linguistic features typical of cognitive academic discourse

When considering the two languages, in German the most significant cognitive academic linguistic forms were the use of attributes, nominalization and compound words; however participles and passive voice constructions also played an important role. For the Portuguese language, the attributes and participles were also typical of a narrative academic style, as well as the use of the gerund as subordinating
feature. For this language, another item of narrative academic style was developed and tested; the use of expressive periphrastic constructions.

When considering the three forms, there were differences between the manifestation of the CALP between all three forms. However, there is evidence for the existence of a CALP narrative style in all types of productions. In the oral productions, the use of colloquial expressions was strongly connected to the use of CALP linguistic features, meaning that in oral contexts, students explore the nature of oral discourse while engaging in academic language. This was particularly valid for the German language.

## Evaluation of the dual language programme at the Rudolf Ross School

After six years of parallel coordinated dual language instruction, the students, in most of the categories and in both languages, performed significantly better than their peers attending submersion classes and receiving first language input as part of a separate programme, and also better than the monolingual students in Portugal. Likewise, the students who had been attending the bilingual programme for only two years at the time of data collection showed advantages in relation to the other groups. The fact that the group of students attending the programme was extremely heterogeneous in its linguistic composition further validates these findings. Furthermore, all student groups participating in the programme seemed to benefit from it, indicating that the aim of balanced bilingualism and biliteracy can be achieved with the continuation of such an instruction programme.

# X. Explaining narrative academic language: the role of the families' socioeconomic status and educational level, students' cognitive skills and reading proficiency, and didactic setting 

Underlying this chapter are statements such as the following:
The effect of bilingual educational programmes that offer explicit mother-tongue support is still not clear, despite the large number of studies and (meta-) analyses, due, above all, to their methodological inadequacy. ${ }^{167}$ (Esser, 2006: 100)

The author of this passage goes on to indicate the reasons for this conclusion:
... the main problem with all these assessments, and the most likely cause of complications and divergences as regards the effectiveness of bilingual programmes seems to be the lack of methodological quality of most research into effects. Amongst other problems, there are no control groups, no pre-measurements, no randomization or other controls of background variables, the results are distorted and random checks are limited in range. ${ }^{168}$ (Idem: 78)

On the other hand, Reich and Roth's review of the literature on the effects of bilingual programmes claims positive results, despite the need for caution in reaching conclusions:

A combination of second language support and heritage language classes clearly leads to better results under similar conditions than monolingual submersion programmes. ${ }^{169}$ (2002: 19)

There are similar accounts in the English-speaking research on this issue:
Study after study has reported that children in bilingual programmes typically outperform their counterparts in all-English programmes on tests of academic achievement in English. Or, at worst, they do just as well. (Krashen and McField, 2005: 8)

Although this study does not claim to rectify all of the problems identified by Esser, it does in fact make use of control groups, which were randomly selected according to the procedures for statistical sampling, pre-measurements (to some extent) and background variables. This chapter therefore tries to explain the results in the light of some control factors.

[^87]
## 1. Bilingual narrative competence and family socioeconomic status and educational attainment

In 1966, Coleman first identified socioeconomic status as a strong predictor of student outcomes in his pioneering study on Equality of Educational Opportunity. He claimed that the student's background played a more significant role than all other didactic factors. Since then, many other studies using different methods for defining socioeconomic status have come to similar conclusions. One of the most extensive comparative studies into student outcomes - PISA - has proven that this relationship is particularly strong in Germany:

The findings of PISA 2000 have shown just how strongly school achievement is related to social background in Germany. In the international comparison, there were only a few OECD states that displayed such a close link between the socioeconomic status of the parents and measured competence as in Germany. ${ }^{170}$ (PISA-Konsortium Deutschland, 2007: 309f)

As in the PISA-Study, the SIOPS and ISEI indexes were determined here using the internationally acknowledged method described by Ganzeboom and Treiman (1996), which combines information about family income and educational level (see Chapter 7). In this section, as in PISA and many other studies, the highest index from both parents was taken as an indicator of the family's socioeconomic status and then related to the features included in the Tulpenbeet-tool. The results are presented below.

### 1.1 Narrative competence

When considering the items used to identify narrative extension and complexity (text length and MLS), there was no significant positive correlation between student outcomes and the ISEI index of the families. In fact, the MLS bore absolutely no relation to socioeconomic factors. The average number of words, however, led to some or the explanation relevant conclusions:

- in both German and Portuguese textual productions, there were negative correlations for both two-way bilingual and submersion students;
- the dictations of the two-way bilingual students reveal the same tendency for Portuguese, but a positive trend with regard to German.

Regarding cognition and "literariness", there were no significant positive correlations found between the individual items and the ISEI index. Indeed, for both languages and all three forms, most of the correlations revealed negative trends for all three groups in the sample. No differences were found between this result and task

[^88]accomplishment, literary features, motivation behind the cactions of the characters of the missing scene. There were similar results for cohesion and lexical differentiation, as no significant positive correlations were found between the items and the socioeconomic index. In all three groups, for all three forms and in both languages, there were predominantly negative trends in the relations between the individual items and the ISEI. The two-way bilingual students displayed negative correlations of about $80 \%$, while for the other two, it was approximately $60 \%$.

Finally, narrative proficiency items also showed no positive correlations in relation to socioeconomic index. Once more, the general trend was towards negative correlations for all groups and languages.

### 1.2 Cognitive academic language

When analysing the relation between the use of the linguistic items typical of narrative cognitive academic language and the ISEI, the results are somewhat different from those found for narrative competence. The bilingual students in submersion classes and the monolinguals in Portugal present general positive correlations, although these were not highly significant, while the two-way bilingual students display predominantly negative correlations. For example, the relationship between the use of CALP elements in the Portuguese textual productions and the ISEI is for this group of $\tau=-.647 ; \mathrm{p}<.05$. This proves that socioeconomic status, which normally influences students' outcomes, does not play a role in the use of academic language within the dual language programme, thus confirming the results found at the end of the fourth grade (Roth, Neumann and Gogolin, 2007).

More specifically, in German, the use of the subjunctive and nominalization seem to be more positively correlated with the socioeconomic status of the families than the other items, whereas in Portuguese, it is the use of passive voice and participle constructions. This is true for both the bilinguals in submersion classes and the monolinguals, while the students attending the two-way bilingual programme present negative trends in these items.

However, these results generally represent trends which indicate that, with a larger sample, the findings would be more distinct. Nevertheless, although they need to be interpreted cautiously, they indicate that such bilingual programmes overcome social class differences by orienting instruction through linguistic diversity. Academic language can thus develop for both languages; in German it is more centred on lexical differentiation and morphology, while in Portuguese it depends more on syntax and morphology.

## 2. Bilingual narrative competence and cognitive skills

The concept of cognitive skills is rather complex, as it is largely determined through so-called "intelligence tests". However, there is also little agreement on
what exactly is meant by the term "intelligence", whether it is innate or acquired, the different types of intelligence that exist and how to measure them. Consequently, there are numerous studies into the relationship between intelligence and school outcomes, focusing on different aspects and using different ways of quantifying intelligence. The most recent trend in this area, for instance, regards the relation between emotional intelligence and student achievement. The term "emotional intelligence" first appeared in an article by Mayer and Salovey (1993, 1995), and entered mainstream discourse with Goleman in 1995. In his work, he argues that an individual's Intelligence Quotient (IQ) contributes only about 20\% to general success in life, while other factors, such as social class, contribute the rest. Since then, several studies have proven the close relationship between emotional intelligence ${ }^{171}$ and school outcomes (cf. among others Richardson and Evans, 1997; Finegan, 1998).

However, as mentioned above, the purpose of this study is not to explore the concept of intelligence but to use an age-appropriate validated measure to establish the comparability of the groups while, at the same time, acting as a background predictor for student outcomes. As shown in Chapter 7, all three groups had similar results in the non-verbal tests applied, thus indicating their comparability. For the following analysis, only one of the three parts of the test was used (the N2), as it was the most stable in all correlation analyses conducted. This same procedure of partially using the results of the KFT-test has already been validated in other projects, such as FöRMIG (Klinger, Schwippert and Leiblein, 2008).

### 2.1 Narrative competence

When relating cognitive skills with text extension categories, no significant correlations were found for any of the groups, forms or languages. However, some of the items forming the category of cognition and "literariness" presented positive correlations, particularly in the Portuguese language. A brief summary of the findings for each group follows:

Group of two-way bilingual students attending the programme:

- in the German texts and dictations, cognitive skills seemed to play no significant role. However, in the oral productions there were clear positive trends and two significant correlations (in motivation behind the characters' action $\tau=.322$; $\mathrm{p}<.05$ and name attribution $\tau=.363 ; \mathrm{p}<.05$ );
- in Portuguese, there were positive trends in all three forms and the textual productions presented one significant correlation, namely motivation behind the characters' action ( $\tau=.36 ; \mathrm{p}<.05$ ).

[^89]Group of bilingual students in submersion classes:

- in German, there were no significant correlations, though positive trends were found in the oral productions;
- in Portuguese, there were positive trends in both forms and one significant correlation also concerning the motivation behind the action of the characters ( $\tau=.646 ; \mathrm{p}<.05$ ).

Group of monolingual students in Portugal:

- no significant correlations but clear positive trends were found in the oral productions.

Regarding the category of cohesion, no correlations were found between the items and the measure for cognitive skills. The oral productions displayed more positive trends than texts and dictations, which were somewhat marked by negative relations in all groups. Similarly, the categories of lexical differentiation and narrative proficiency and level displayed no significant correlations for any of the groups, languages or forms.

Thus, in submersion classes, student intelligence seems to play an important role for student outcomes, while in the bilingual programme, individual cognitive abilities are complemented by other skills, thus becoming less central to school achievement.

### 2.2 Cognitive academic language

This category shows very different results from the previous analysis of narrative competence. There seems to be a distinct relationship between cognitive skills and the use of cognitive academic language in all the three groups. In German, all groups present positive correlations, particularly in the oral productions and concerning both the items of nominalization and participle constructions, as well as the category of CALP elements in general. In Portuguese, this trend towards a positive correlation between cognitive skills and academic language is even more pronounced. The categories with the most significant correlations are the use of attributes, participle constructions and also the category representing the sum of all $C A L P$ elements.

## 3. Bilingual narrative competence and reading comprehension

The external and internationally validated reading comprehension test was administered in order to establish a suitable measure for school achievement, as school grades are not considered to be a stable and comparable factor (Thiel and Valtin, 2002; Bos et al., 2003). According to König:
... classes can differ greatly as to their achievement level, even though a similar mark spectrum is used. Given this lack of comparability of school marks, the educational recommendation loses validity for grammar schools at secondary level ${ }^{172}$ (2006: 32).

Thus, this research used the reading comprehension test from the PIRLS-IGLU study to determine student outcomes. However, the same test was also used as a preliminary diagnostic and comparative instrument, as it was administered at the beginning of the fifth grade for the two-way bilingual students. This allowed a comparison between the class's performance at the end of primary school and its achievement at the beginning of the fifth with $50 \%$ new students.

Regarding bilingual reading comprehension skills, in 1983, Duran and Enright, analysing Spanish and English-speaking students in Guatemala, concluded that the subjects used similar cognitive skills in performing both language tasks. Even though their reading and language proficiency was higher in English, they managed to perform similarly in both languages. Their responses were as accurate in Spanish as in English, although slightly slower. The authors concluded that bilingual students from strong educational backgrounds were more effective in transferring cognitive skills from one language to another. Thus, in the present research, not only the results of the bilingual narrative skills will be correlated to those of the reading comprehension test, but the socioeconomic status of the families and students' cognitive abilities will also be analysed.

### 3.1 Preliminary considerations

In May 2004, the reading-comprehension test PIRLS-IGLU was administered to the children attending primary school, and in November 2004, to the new students that had entered the bilingual class at the beginning of the school year. The purpose of this study was to assess and compare the reading comprehension strategies of fourth graders (nine and ten year-olds). In PIRLS 2001, the first in a planned fiveyear cycle of studies to identify international trends in reading literacy, 146,490 students were tested in 35 different countries. In Germany, 16 Länder took part in the initial testing. This was later followed by an independent expansion of the tests in 12 Länder, in order to allow comparisons.

### 3.2 Description of the test

The tests were developed following the Framework and Specifications for the PIRLS Assessment 2001 (Mullis, Kennedy and Martin, 2006), where a theoretical

[^90]conception of reading literacy was supplied, alongside the types of reading materials and questions that were to serve as the basis for the assessment instrument. The notion of reading literacy is here defined as:

The ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers, and for enjoyment. (Mullis et al., 2006: 3)

From this definition, two main age-appropriate purposes for reading were selected: reading for literary experience and reading to acquire and use information. Four general comprehension processes, common to both of these reading areas, were specified as the basis for the items that would be assessed in relation to the selected texts. These were the ability to:

- focus on and retrieve explicitly stated information;
- make direct inferences;
- interpret and integrate ideas and information;
- analyse and evaluate content, language and textual elements.

The tests were constructed in the form of booklets, beginning with instructions relating to the different tasks to be completed, followed by a textual passage and concluding with the questions, designed to evaluate these four different processes.

After the selection and preliminary testing phase, eight passages (four literary and four informative) were chosen to be used in the PIRLS 2001 international study. From these, one passage of each type was published online and could be used for further testing by institutions and researchers. For this analysis, both passages were applied to the bilingual Portuguese-German class in two phases: in May 2004 to the class that had participated in the programme since the first grade and in November 2004 to the 11 new students that had joined the class at the beginning of the fifth grade and had never participated in a bilingual programme before. The tests were to be applied in both German and Portuguese, but as no Portuguesespeaking country had participated in the initial PIRLS study, there was no authorized translation available for Portuguese. Following the indications of Prof. Dr. Wilfried Bos, director of the PIRLS German office, a first translation of the two passages from German into Portuguese was undertaken. Subsequently, this was translated back into German by another translator. The two German versions were then compared by a third researcher, in order to check for deviations, and the Portuguese translation was approved.

The titles of the passages used in the PIRLS-IGLU test applied in German and Portuguese are shown in Table 21.

In accordance with the PIRLS 2001 study, two different booklets were prepared for each text. Booklet A included the Hare text and questions in German and the Puffin text with questions in Portuguese, while Booklet $B$ was the other way
around. This was necessary in order to avoid statistical bias and to discourage the students from copying from each other.

Table 21 - Genre and title of the passages in the PIRLS-IGLU test applied in German and Portuguese.

| Language |  | German |
| :--- | :---: | :---: |
| Portuguese |  |  |
| Literary text | Der Hase kündigt das Erdbeben an | A lebre e o tremor de terra |
| Informative text | Die Nächte der jungen Papageientaucher | As noites dos jovens papagaios marinhos |

### 3.3 Description of the sample and data analysis

The test was firstly applied to 25 students from the Portuguese-German bilingual class, comprising 1115 boys and 10 girls. The following language groups were submitted to the test:

- Group A: 4 children
- Group B: 7 children
- Group C: 1 child ${ }^{173}$
- Group D: 13 children.

The data were statistically examined using the SPSS programme. First, the results referring to the "Gesamtschule" (fifth grade) will be presented and discussed and, in a second phase, they will be compared to those collected in the "Grundschule" (fourth grade). From this comparison, the programme of bilingual teaching, which began with the first grade, can be examined in that the results achieved by the students that had attended the school for four years will be compared with the results attained by the fifth grade class, which received eleven new students, who had never taken part in a bilingual class.

Lastly, the results of the application of the same test at the end of the sixth grades and to all three groups of the sample will be analysed as a means of observing the progress of the bilingual class and in order to compare the results to the other two groups.

### 3.4 Results of the test for the "Gesamtschule"

Figure 33 shows the results achieved per language group in both languages and in both sections of the test. The mean values indicate that all three groups attained a very similar outcome in the total evaluation. However, Figure 34 illustrates that the differences between the performances in both languages has become more apparent.

[^91]

Figure 33 - Mean of the results of the test per language group.
The results attained in German are higher among the students of Group A, although without significant differences in relation to the students of Group D. Group B, however, displays a relatively lower performance in this language, a fact that had been predicted due to the admission into the class of new students with very low proficiency in German.


Figure 34 - Mean of the results of the test per language.
For this reason, the distribution of the individual performances is for Groups D and B higher than for Group A (Group B $\mathrm{sd}^{174}=4.48$; Group D $\mathrm{sd}=4.51$ ). For Portuguese, the results are significantly lower than those achieved in German since there are more differences between the groups. Group B attained almost the same mean result as in German, although the distribution of individual performances was considerably lower, as proficiency in Portuguese in this group tends to be more homogeneous ( $\mathrm{sd}=1.41$ ). Group D was the most affected by the admission of new students into the class, particularly as far as the Portuguese language is concerned. Four of the new students in this group were not literate in this language, and were therefore unable to cope with the reading text and the subsequent comprehension
questions. As a result, their performance in the Portuguese section of the test was rather poor (between 0 and 3 points ${ }^{175}$ ), which contributed to the overall lower outcome in the Portuguese section of Group D. Regarding Group A, the results in Portuguese were, as expected, very low in comparison to the other two groups and also in comparison to primary school performance, ${ }^{176}$ which also derives from the fact that the three new students of this group had never had any contact with the Portuguese language before. Not only was their knowledge at the time of testing almost non-existent, but their attitude towards the language was considered by both teachers and parents to be very negative. ${ }^{177}$

The difference between proficiency in the two languages becomes even more apparent when we compare the correct, incorrect and blank answers. In German, the students had more answers correct than incorrect. Moreover, very few questions were left unanswered, a fact that illustrates the dominance of the German language. On the other hand, in Portuguese, more answers were incorrect and the number of questions left blank was almost as high as those answered correctly.

## 3.5 "Grundschule" vs. "Gesamtschule" results

The most striking results derive from the comparison between the fourth and the fifth grades. The 11 students who left the class had attained, overall, higher levels of educational achievement than those that entered the class in the fifth grade. As can be seen in Figure 35, the total results achieved by the "Grundschule" class are considerably higher than those attained at the "Gesamtschule." Figure 36 demonstrates that this trend is valid for both languages, with the results for the Portuguese language in the "Gesamtschule" the lowest of all. German is, as expected, the dominant language in both classes.


Figure 35 - Total results "Grundschule" and "Gesamtschule".

[^92]

Figure 36 - Results per language "Grundschule" and "Gesamtschule".

### 3.6 Two years of bilingual schooling: 2004 vs. 2006

After two years of coordinated bilingual education, the PIRLS-IGLU test was applied once more as a way of measuring the general progress of the class in readingcomprehension. As Figure 37 shows, both in the total result, and the individual languages, the performance of the bilingual class had significantly improved.


Figure 37 - Comparison of performance in 2004 and 2006.
These results are per se a confirmation of the positive effects of the bilingual programme, since, at the outset, the class included several students who were not proficient in the languages of the bilingual combination. However, the achievement of the bilingual class becomes even more relevant when compared with the performance of the Portuguese-German bilingual students who had been attending extracurricular Portuguese classes for six years. These students have thus all become literate in both languages and had regular contact with the written system of the Portuguese language. Their performance in German is significantly lower than that of the bilingual students in the bilingual class.

As regards Portuguese, the results of the students in the bilingual programme are even more unexpected, particularly in the light of the number of students who had either no proficiency in this language or were not literate in it. The bilingual students not taking part in the bilingual programme achieved the lowest results of all the three groups of the sample, followed by the monolingual students in Braga, Portugal. And although this difference in performance is not significant, the students of the bilingual programme achieved the highest results of all of the three groups, despite the extreme heterogeneous proficiency in this language at the beginning of the fifth grade.

### 3.7 Bilingual narrative competence and reading comprehension

The results presented below refer only to the data collected for all three groups in 2006. For a general appreciation of the PIRLS-IGLU test as a measure of school achievement, an initial analysis was conducted with the view of relating it to the families' socio-economic level and the students' cognitive skills. Moreover, the two tests in Portuguese and the two in German were added, so that the languages could also be tested in their total performance, as well as in relation to each other.

A first appreciation of the whole sample shows positive correlation trends between all parts of the test and both socio-economic index and cognitive skills measures. However, no correlation is significant. Comparison of the three groups reveals significant positive correlations for the two-way bilingual students between the German score and cognitive skills ( $\tau=.296 ; \mathrm{p}<.05$ ). Furthermore, the monolingual students in Portugal show a significant positive correlation between their PIRLS performance and the socio-economic level of the families ( $\tau=.450 ; \mathrm{p}<.05$ ). This correlation is predominantly due to their performance in the narrative passage ( $\tau=.588 ; \mathrm{p}<.01$ ). The bilingual students in submersion classes present no significant correlations.

As for the internal reliability of the instrument itself, strong positive correlations between both sorts of texts in all groups is found ( $\tau=.602 ; \mathrm{p}<.01$ ). This leads to the conclusion that the test is assessing similar reading skills in both forms and languages.

## Narrative competence

In relation to narrative extension, all groups display positive trends between the reading comprehension scores and both number of words and MLS. However, only one of these is of significant nature - for the two-way bilingual students, between the general score in both German tests and the number of words in the textual productions ( $\tau=.314 ; \mathrm{p}<.05$ ).

As for the relation between cognition, "literariness" and reading comprehension skills, this is also marked by positive correlations for all groups. These are once
again only significant for the two-way bilingual students. In German, the general PIRLS score for both tests correlates with name attribution ( $\tau=.418 ; \mathrm{p}<.05$ ) and with specification of the children's actions ( $\tau=.509 ; \mathrm{p}<.05$ ) in the textual productions. In Portuguese, the general score of both tests correlates with the explanation given for the man's fall ( $\tau=.380 ; \mathrm{p}<.05$ ). This significant correlation is mainly due to performance in the narrative passage, where this item correlates at a highly significant level with the total score in the test ( $\tau=.509 ; \mathrm{p}<.01$ ). Similarly, in the Portuguese dictations, the explanation for the man's fall also correlates with the general score of both passages ( $\tau=.386 ; \mathrm{p}<.05$ ) and this is equally attributable to the general score obtained in the narrative passage ( $\tau=.469 ; \mathrm{p}<.01$ ).

The category of cohesion displays a similar picture. The three groups in the sample have positive correlation trends, although these are only significant for the two-way bilingual students. In German, all significant correlations are confined to the textual productions. Here, the two more complex forms of sentence connections - one main clause followed either by one subordinate clause or by several subordinate clauses - are the source for all significant correlations. The first of these syntactical connections forms correlates with the general score in both German productions ( $\tau=.395 ; \mathrm{p}<.05$ ), with both the narrative ( $\tau=.378 ; \mathrm{p}<.05$ ) and informative ( $\tau=.385 ; \mathrm{p}<.05$ ) passages and also with the Portuguese score in the narrative test ( $\tau=.350 ; \mathrm{p}<.05$ ). The second and more complex connection form correlates with the German score ( $\tau=.400 ; \mathrm{p}<0.05$ ), with the Portuguese test ( $\tau=.495 ; \mathrm{p}<.05$ ) and with the informative texts in both German ( $\tau=.507 ; \mathrm{p}<.01$ ) and in Portuguese ( $\tau=.509$; $\mathrm{p}<.01$ ). In Portuguese, the types of sentence connectors used in the textual productions correlate with the general score in the test of this language ( $\tau=.347 ; \mathrm{p}<.05$ ). The item of one main clause followed by one subordinate clause in the dictations also correlates with the total score of the test $(\tau=.399 ; \mathrm{p}<.01)$. In the case of the oral productions, the tokens of the sentence connectors offer a significant correlation with this same category ( $\tau=.456 ; \mathrm{p}<.01$ ).

Lexical differentiation also portrays a network of positive relations between the items and the reading comprehension measures. As with the categories analysed above, these relations are only significant in the case of the two-way bilingual students. In the German textual productions, the general category of vocabulary (including types of verbs, nouns and adjectives) correlates with the general score in the German part of the PIRLS test ( $\tau=.342: \mathrm{p}<.05$ ), as well as with both narrative ( $\tau=.321 ; \mathrm{p}<.05$ ) and informative texts ( $\tau=.340 ; \mathrm{p}<.05$ ). In Portuguese, the category of the vocabulary used in the oral productions, correlates with the score achieved in the narrative text ( $\tau=.339 ; \mathrm{p}<.05$ ).

Finally, the category of narrative proficiency and level offers an analogous set of results with positive correlation tendencies for all groups. In German, the twoway bilingual students present very few significant correlations. The temporal markers category of the textual productions, for instance, correlates with the performance achieved in the informative text ( $\tau=.315 ; \mathrm{p}<.05$ ). In Portuguese, however, the use of causal markers seems to be strongly dependent on reading comprehen-
sion skills. In the textual productions, they correlate with both narrative productions in German ( $\tau=.396 ; \mathrm{p}<.05$ ) and Portuguese ( $\tau=.327 ; \mathrm{p}<.05$ ), as well as with the Portuguese informative text performance ( $\tau=.332 ; \mathrm{p}<.05$ ). Correspondently it also correlates with the general achievement in the Portuguese test narrative in general ( $\tau=.350 ; \mathrm{p}<.05$ ). In the dictations, the same category correlates with the narrative passage in the same language ( $\tau=.448 ; \mathrm{p}<.01$ ) and equally with general achievement in the Portuguese language ( $\tau=.347 ; \mathrm{p}<.05$ ).

In this last category, the bilingual students in submersion classes also had two significant correlations; the German oral productions correlates with performance in the narrative passage ( $\tau=.580 ; \mathrm{p}<.05$ ), as well as with the informative passage in Portuguese ( $\tau=.558 ; \mathrm{p}<.05$ )

## Cognitive academic language

The relation between academic language features and reading comprehension skills is better defined for all groups than that of the categories of narrative competence, as a considerable number achieve a statistically significant level.

When testing the general category of CALP linguistic items, several correlations emerge. In German, these are only significant in the case of the texts and not for the dictations and oral productions, although both forms show positive statistical tendencies. For the two-way bilingual students, the CALP category correlates with the total PIRLS score ( $\tau=.385 ; \mathrm{p}<.05$ ), as well as with the German narrative ( $\tau=.389$; $\mathrm{p}<.05$ ) and informative ( $\tau=.366 ; \mathrm{p}<.05$ ) passages. Additionally, it also correlates with the Portuguese informative text ( $\tau=.328 ; \mathrm{p}<.05$ ). In the case of the students in submersion classes, this category correlates with all measures of reading comprehension used in the analysis; with the total PIRLS score in German ( $\tau=.600 ; \mathrm{p}<.01$ ) and Portuguese ( $\tau=.734 ; \mathrm{p}<.01$ ) and subsequently with both tests in both languages (German narrative $\tau=.554 ; \mathrm{p}<0.05$, German informative $\tau=.582 ; \mathrm{p}<.05$, Portuguese narrative $\tau=.484 ; \mathrm{p}<.05$, Portuguese informative $\tau=.570 ; \mathrm{p}<.01$ ).

In Portuguese there were less significant correlations found, although most of them were of a positive nature. For the two-way bilingual students, the CALP category correlates with the total PIRLS score ( $\tau=.354 ; \mathrm{p}<.05$ ) and the narrative test ( $\tau=.339 ; \mathrm{p}<.05$ ) in both dictations and oral productions. For the monolingual students in Portugal, it correlates with the narrative test ( $\tau=.655 ; \mathrm{p}<.01$ ).

As for the various items included in the cognitive academic language category, the German language offers a strong positive relation between reading comprehension skills and the use of attributes and compound words for both groups in the sample. The two-way bilingual students display significant correlations in their textual productions between the use of attributes and performance in the informative text ( $\tau=.474 ; \mathrm{p}<.05$ ) and in the whole of the German PIRLS test ( $\tau=.444 ; \mathrm{p}<.05$ ), as well as in the Portuguese informative passage ( $\tau=.412 ; \mathrm{p}<.05$ ). With the narrative text no significant correlations were found, although the categories of attributes
and participles showed strong positive trends. In both dictations and oral productions, the correlations were predominantly positive in nature although not significant. Also, in this instance, the strongest categories were the attributes and the use of compound words. The bilingual students in submersion classes portray similar trends although very few correlations achieved a significant level.

In the Portuguese textual productions, the two-way bilingual students have significant correlations mostly with the narrative text; the use of the subjunctive correlates with the performance in the Portuguese language ( $\tau=.397 ; \mathrm{p}<.05$ ), in the German language ( $\tau=.434 ; \mathrm{p}<.05$ ) and even with general performance in the German PIRLS ( $\tau=.400 ; \mathrm{p}<.05$ ). Other strong items were the use of gerund, attributes and participles. The bilinguals in submersion classes also have one significant correlation between the use of participles and the results of the informative text ( $\tau=.540$; $\mathrm{p}<.05$ ). The same correlation was found for the monolingual students ( $\tau=.513$; $\mathrm{p}<.05$ ). Dictations and oral productions display fewer significant correlations, although portraying the same trends. Attributes, subjunctive and participles were the strongest categories, particularly in the groups for the two-way bilingual students.

## 4. A model of academic narrative competence in a dual-language instruction environment

A regression analysis was performed in order to summarize all previously mentioned results, thereby allowing a narration pattern to be identified in the bilingual instruction model. Regression analysis is a statistical instrument used for the examination of relationships between variables, which seeks to ascertain the causal effect of one variable upon another (Field, 2005). Therefore, the application of regression aims at estimating the quantitative effect of the causal variables upon the variable that they influence.

In this study, the influence of the families' socioeconomic level, the cognitive abilities and reading-comprehension level of the students on the narrative competence of the bilingual class was examined. The measures for narrative competence comprise the most significant variables determined throughout the present study: task accomplishment, use of literary features, differentiated vocabulary (verbal, nominal and adjectival), as well as academic language means. Separate analyses were conducted for textual and oral productions in both German and Portuguese.

## Textual competence in German

The regression analysis (which used as dependent variable the students' task accomplishment results, and as independent variables, the ISEI and KFT results, and PIRLS/IGLU performance) revealed very little variance ( $\mathrm{R}^{2}=.041$ ). Both family socioeconomic level ( $\beta=.129$ ) and students' cognitive abilities ( $\beta=-.208$ ) have very little influence on the students' task accomplishment. In fact, individual cognitive
ability even has a negative influence. Task accomplishment seems to be rather influenced by the reading-comprehension level $(\beta=.250)$ of the students.

For the examination of aspects influencing the use of literary features in narrative productions, a factor analysis was performed in order to determine which were most significant. The organization of the beginning and end of the texts, as well as the use of dialogues form one stable factor $(\alpha=.66)$ and were thus transformed into one variable. Similar to the results found for the task accomplishment, neither the families' socioeconomic level ( $\beta=-.051$ ) or students' cognitive abilities ( $\beta=-.311$ ) positively influences results. On the contrary, the performance in the PIRLS/IGLU test significantly influences the use of literary features in the narrative productions ( $\beta=.459$ ).

As mentioned above, vocabulary is the strongest category in the data. When considering its differentiation, i.e. only the types of different verbs, adjectives and nouns, a very strong factor emerges $(\alpha=.90)$. The regression analysis with this dependent variable shows that the model explains $33 \%$ of the variance $\left(\mathrm{R}^{2}=.326\right)$. However, examination of the coefficients reveals that, once more, reading comprehension is the only factor playing a significant role in the use of differentiated vocabulary ( $\beta=.658$ ). Socioeconomic level ( $\beta=-.078$ ) and cognitive abilities $(\beta=-.197)$ have once again no positive influence.

A factor analysis of cognitive academic language aspects collected in the German productions (nominalizations, compound words, attributes, participles, passive voice and subjunctive mode) indicates a rather stable factor ( $\alpha=.65$ ) which was therefore used as independent variable for the regression. The results show that this model explains $34 \%$ of the variance $\left(\mathrm{R}^{2}=.341\right)$ and only the families' socioeconomic level ( $\beta=-.295$ ) has a negative influence on the use of academic language. Reading-comprehension, as expected, positively influences ( $\beta=.293$ ) narrative academic language and, in this case, as does students' cognitive abilities, although this was not statistically significant ( $\beta=.055$ ).

## Oral competence in German

Regarding oral task accomplishment, the results of the regression analysis are different from those found for the textual productions, although also here the families' socioeconomic level has no influence on the students' results ( $\beta=-.139$ ). The main difference lies in the role of reading-comprehension which, in an oral context, seems to lose its influence upon task proficiency $(\beta=-.239)$. On the other hand, the students' cognitive abilities significantly influence the results ( $\beta=.261$ ).

A factor analysis of literary features resulted in one stable factor ( $\alpha=.70$ ) and could thus be used for regression. The analysis confirms the results found for the task accomplishment. The model explains $40 \%$ of the variance $\left(\mathrm{R}^{2}=.399\right)$ but when examining the coefficients it is easily detectable that this resides in the strong positive influence of cognitive abilities on the use of literary features $(\beta=.640)$. On the
other hand, neither reading-comprehension ( $\beta=-.341$ ) or families' socioeconomic level ( $\beta=-.286$ ) plays a positive role for this performance.

The category of vocabulary also constitutes a stable factor in the oral productions $(\alpha=.71)$. The model identified by the same regression analysis accounts for $28 \%$ of the variance $\left(\mathrm{R}^{2}=.281\right)$ and it confirms the previously reported results; the students' cognitive abilities influences the oral use of a differentiated vocabulary ( $\beta=.509$ ), whilst the families' socioeconomic level ( $\beta=-.052$ ) and reading proficiency $(\beta=.070)$ play no significant role.

The factor analysis conducted with the linguistic items typical of an academic discourse resulted in a stable factor $(\alpha=.69)$. As with the previous results found for the oral productions, here too the only aspect influencing academic proficiency is students' cognitive abilities ( $\beta=.354$ ). The families' socioeconomic level ( $\beta=-.193$ ) and reading-comprehension ( $\beta=.081$ ) do not positively influence students' performance in this respect.

## Textual competence in Portuguese

Task accomplishment in the Portuguese texts displays comparable results to those found for the German textual productions, when considering the absence of influence of the families' socioeconomic level ( $\beta=-.324$ ). On the other hand, the students' cognitive abilities assumes a more positive role in student performance, though not at a significant level $(\beta=.034)$. More clearly, the students' readingcomprehension proficiency plays a significant role for task accomplishment ( $\beta=.193$ ), though less distinctly than in German.

As for the use of literary features, a stable factor was found ( $\alpha=.84$ ) after dialogues had been excluded (in the Portuguese texts this does not form one factor with the other items). After performing the regression analysis, the results from above become more clear; once again, the families' socioeconomic level has no influence on the results ( $\beta=-.206$ ), whilst both cognitive abilities ( $\beta=.308$ ) and read-ing-comprehension $(\beta=.229)$ seem to positively influence them.

For the category of vocabulary, similar results were found. This category also forms a reliable factor in Portuguese $(\alpha=.70)$. The regression found that socioeconomic level had a negative influence ( $\beta=-.171$ ) and weak positive significant relations with the reading-comprehension results $(\beta=.176)$ and cognitive abilities $(\beta=.120)$.

The linguistic means used to define academic language form one stable factor ( $\alpha=.67$ ). The regression analysis indicates that, in this particular case, the families' socioeconomic level does not have a negative relation with regard to students' performance $(\beta=.078)$, though this is not significant. More important for academic language in Portuguese seems to be students' cognitive abilities ( $\beta=.552$ ) and read-ing-comprehension proficiency $(\beta=.106)$.

## Oral competence in Portuguese

The oral data offer a similar picture. As regards task accomplishment, no positive relation to the families' socioeconomic level was found ( $\beta=-.162$ ). However, a weak positive influence of the students' cognitive abilities is recognisable ( $\beta=.217$ ). A clearer result is given by reading-comprehension proficiency ( $\beta=-.387$ ), which has a positive influence.

Literary features form a reliable factor ( $\alpha=.64$ ). The regression analysis confirms the results found until now for the Portuguese language: the families' socioeconomic level plays no positive role in students' performance ( $\beta=-.177$ ), while cognitive abilities ( $\beta=.246$ ) and reading-comprehension ( $\beta=.117$ ) positively influence the results. As expected, the category of vocabulary also constitutes one stable factor ( $\alpha=.77$ ) which is not influenced by the families' socioeconomic level ( $\beta=-.171$ ). As with all the Portuguese data, both reading-comprehension proficiency ( $\beta=.377$ ) and students' cognitive abilities $(\beta=.246)$ influence this.

A reliability analysis indicates that the linguistic means used to determine academic language in oral narrative contexts also form a stable factor $(\alpha=.71)$. When performing regression, the same clear results are confirmed: the families' socioeconomic level does not influence the results ( $\beta=-.340$ ), whilst reading comprehension ( $\beta=.292$ ) and, more weakly, cognitive abilities ( $\beta=.094$ ) positively influence students' cognitive academic performance.

## Model of bilingual narrative competence

To summarize the results reported above, neither the families' socioeconomic level nor students' cognitive abilities have any influence on students' narrative competence in the German textual productions. On the other hand, their readingcomprehension level significantly influences their performance in the narrative task, not only in terms of task achievement, but also regarding the use of literary features, the choice of vocabulary and the application of linguistic means typical of a more academic style.

However, the German oral productions reveal a strong positive influence of cognitive abilities on oral narrative competence. Both reading-comprehension level and families' socioeconomic level play no significant role for this performance. Consequently, it can be concluded that different aspects influence students' performance in written and oral narrative contexts; while skills play an important role during writing and reading comprehension, in oral situations students mostly rely on their inherent cognitive abilities to cope with the task.

In Portuguese, the results found for both textual oral productions were similar; the families' socioeconomic level has no influence on students' narrative competence, whilst both cognitive abilities and reading-comprehension level positively influence it. So, while in German there are clear differences between written and oral narration, Portuguese has one common narrative proficiency, influenced by cognitive
abilities and reading-comprehension. The aim of the model, however, is to reach what has been found for the German textual narrations; that neither socioeconomic level nor cognitive abilities significantly influence students' performance.


Figure 38 - Narrative competence in a dual language instruction environment.
Narrative competence in a dual language instruction environment can be depicted as in Figure 38, where the three factors generally influencing narrative competence (families' socioeconomic level, cognitive abilities and student reading comprehension proficiency) are displayed in a general model. The absence of positive influence of the factor is shown by the cross.

## 5. Didactic setting in the bilingual programme

The students of the Portuguese-German class 5 dp at the Rudolf Ross School are sitting in their classroom, where the walls are covered with colourful displays on the subjects of "Childrens' Rights" and "Children of the World". All include pictures and are written in both Portuguese and German. Several flags can also be seen: Germany, Brazil, Portugal, Angola, Cape Verde, etc. At the front, a young girl called Karina reports in German about her experience in an orphanage in Brazil and the class listens in silence. She then starts showing pictures of the children that she worked with and the precarious facilities in the home, and tells stories about her daily life there. The students ask questions and compare their situation in Germany with that of these children. All this takes place in German. Suddenly, a bilingual girl (Polish-German) asks in Portuguese if Karina stills remembers the language and can speak it. Karina answers in perfect Brazilian Portuguese and the discussion goes on in this language for about ten more minutes. It seems that such code-switching is a natural occurrence in this classroom [Society class, 26.05.2005].

Scenes like the one described above were frequently observed in the two years of data collection used as the basis for this research. In order to examine the possible influences of the bilingual didactic setting on the results of the students attending this educational programme, classroom observations were conducted regularly. A qualitative analysis is presented as follows.

### 5.1 Some notes on the general learning environment

The Rudolf Ross School in the centre of Hamburg has recently been accorded the title of European School. In fact, it reflects the linguistic and cultural diversity of many urban areas in Europe, as it receives students from all corners of the world. Moreover, unlike other educational institutions, it does not try to hide its diversity but rather displays it. Accordingly, in the hallway, and around the whole school building, there are flags of different countries, photos of the students together with maps of their home countries and also the names of several countries. In the photocopy room or staffroom, one can hear Portuguese being spoken, as well as English and Turkish. Since 2007, the school initiated a secondary bilingual programme in Turkish-German, included in the Hamburg bilingual primary schools projects. Thus, the external learning environment surrounding the Portuguese-German programme is marked by a positive institutional attitude towards multilingualism.

During data collection, it was also observed that this extrinsic appearance of the school was reflected in its teaching staff; many of the teachers are bilingual and there is a generally encouraging approach towards the bilingual programme. The teachers who are not directly involved in the project seemed to cooperate and be interested in the programme and cooperated directly with those linked to the bilingual classes. The teachers of the bilingual schools also participated in their own further education programme created by the "Schulbehörde," with four to eight different units per school year, designed to explore themes related to bilingual didactic issues. Here different teachers are invited to bring their own examples and questions so that the whole group can benefit from the individual experiences. Thus the cooperation between all bilingual schools and the official Hamburg educational institution also stimulates a positive and supportive environment for the functioning of the model. This was mentioned previously in the questioning of the teachers conducted during the evaluation of the bilingual classes at the "Grundschule," where $97 \%$ of all teachers involved considered it to be a very positive experience (Gogolin, Neumann and Roth, 2003a).

Within the Rudolf Ross School, an internal hierarchy was created around the programme. The primary and secondary schools each have one official representative who liaises regularly with the teachers and with each other, and also with the school director; when necessary, they also arrange meetings with the school psychologist, parents, etc. This allows an important exchange of information, contributing to a more intensive involvement of the various sections. There is also a strict
documentation policy, so that teachers involved in the bilingual subjects must keep a record of all activities conducted and materials used in classes. These are then made available to all other teachers in order to facilitate the development of the programme and assure a certain continuation across the school years.

Considering particularly the spatial learning atmosphere of the PortugueseGerman class, the description of the classroom given above conveys something of the significance given to bilingualism. Both content- and organization-specific items present in the room are produced in Portuguese and German. The content items are mostly presentations of student-projects on several topics and are regularly changed. Furthermore, there is a small library with books in both languages, as well as a cupboard with dictionaries and textbooks in Portuguese, German and English. The organizational items, including timetables, tasks, classroom layout, etc., are also bilingual.

Moreover, the school is open to all sorts of projects, so that university students regularly observe lessons, and trainee teachers are able to acquire teaching practice also within the programme. The school also takes part in other, broader, initiatives. During the period of data collection, for instance, the students participated in the national project "Around the World in 80 days", in which fifteen minutes of reading in the classroom corresponded to one mile, the main aim being to read one's way across the globe. In the bilingual classes, this was done in both languages. Another project, launched by the city of Hamburg and called "My City", was also conducted bilingually, so that the projects on the different neighbourhoods and institutions were presented in German and Portuguese. The bilingual classes established cooperation with the Teacher Training College in Setúbal, Portugal, supported by the SOCRATES-Programme. This openness is also reflected at an individual level, in that the teachers also use their contacts to enrich the classes. During the observed lessons, a Brazilian trainee teacher working with the Portuguese class and a German student who had worked at an orphanage in Brazil reported their experiences. Furthermore, the teachers mentioned the presence of other guests and initiatives. For instance, the students went to the concert of the Cape-Verdean singer Lura in Hamburg and interviewed her about her own bilingual experience, ${ }^{178}$ reporting their findings in both languages. Two girls, who are fluent in Creole, as well as Portuguese, actually conducted her interviews in this language.

As mentioned above, the didactic model implemented by the bilingual schools in Hamburg follows that of the Italian-German school in Wolfsburg. It thus involves a basis of twelve hours a week of bilingual teaching, where contrastive instruction is also included. Nevertheless, through the openness of the school and adaptation of external initiatives to serve the purposes of the bilingual classes, the presence of the Portuguese language is actually more extensive than was predicted in a 50-50 model. This search for possibilities to integrate this language in fact goes beyond the somewhat sporadic appropriation from externally formulated projects;

[^93]the school looks for speakers of this language within its own teaching staff. Thus, a Brazilian music teacher was found and those classes are now bilingual, while other German teachers were found to cooperate with the Portuguese teachers assigned by the Consulate.

Accordingly, the institutional, external and internal environment surrounding the bilingual programme and the observed class provides the infra-structural and attitudinal premises for its successful functioning.

### 5.2 Data collection and analysis

The appreciation of the didactic setting in which the Portuguese-German bilingual class is embedded will be based on several types of data. Table 22 displays an overview of the instruments used for data collection.

Table 22 - Overview of instruments used for didactic data collection.

| Instruments | Subject or Informants | Date |
| :---: | :---: | :---: |
| Classroom observations | Portuguese class | 18.11.2004 |
|  |  | 02.12.2004 |
|  |  | 08.02.2005 |
|  |  | 26.05.2005 |
|  |  | 07.11.2005 |
|  | German class | 18.11.2004 |
|  |  | 08.02.2005 |
|  |  | 07.11.2005 |
|  | Gesellschaft / Sociedade | 19.11.2004 |
|  |  | 08.02.2005 |
|  |  | 26.05.2005 |
|  |  | 21.06.2005 |
|  |  | 24.10.2005 |
| Classroom videos | Portuguese class | 17.01.2006 |
|  |  | $20.03 .2006$ |
|  | Gesellschaft / Sociedade | 18.01.2006 |
|  |  | 14.04.2006 |
| Informal interviews | German teacher | During the two years of data collection and towards the end of the sixth grade. |
|  | Portuguese teacher |  |
|  |  |  |
| Discussion and feedback circles | German and Portuguese teachers involved in the programme | $\begin{aligned} & \text { 09.11.2005 } \\ & 26.01 .2006 \end{aligned}$ |

The classroom observations were recorded on observation sheets after the programme (see Table 23). The events happening in the classroom were chronologically described by the observer, who could also add comments of more interpretative nature in the last column of the sheet. Additionally, language ( L ) and codemixing (CM) were separately noted, in order to analyse interaction.

Table 23 - Example of classroom observation sheet (Gesellschaft / Sociedade, 26.05.05).

| Time | $\begin{gathered} \hline \mathbf{L} / \\ \mathbf{C M} \end{gathered}$ | Events | Comments |
| :---: | :---: | :---: | :---: |
| 10:14 | G | Frau C. schlie $\beta$ t die Diskussion ab und wendet sich einem anderen Thema zu [Mrs. C. ends the discussion and turns to another subject]. Mit Bildern und Anweisungen von Frau C. melden sich die Kinder, um Definitionen vom Kindsein zu geben. <br> Alle melden sich mit Ideen und diskutieren Begriffe wie "Armut", "ungerechte Verteilung", "Rassismus", usw [Following the pictures and Mrs. C. 's instructions, the children give definitions of what it means to be a child. Everyone wants to contribute with ideas and the class discusses concepts like "poverty", "unfair distribution", "racism", etc.]. | Durch die Bilder werden die Schüler ruhig und aufmerksam [Through the pictures the students become quiet and attentive]. <br> Die Diskussion läuft respektvoll, obwohl sie ab und zu persönlich wird, besonders was das Thema Rassismus angeht [The discussion is generally civil, although it becomes personal now and again, especially concerning the subject of racism]. |

Generally speaking, classroom observations are appropriate if one is seeking to acquire information concerning classroom interactions both between teacher and students and amongst the students themselves. In this research, they were also used to supply data on language use in this particular bilingual programme. More specifically, it recorded which languages were used when and by whom, allowing conclusions to be drawn as regards choice, proficiency, and didactic activities towards language endorsement and the students' reactions.

As these observations predominantly generate information about oral communication, four video recordings were also produced, in order to document the general learning environment, prosodic aspects of language use, class materials, etc. Video data has the advantage of being available to all interested viewers and not being subject to the subjective perspective of one observer.

Data collection and the long stays in the school created many more opportunities for dialogue with the teachers involved in the bilingual programme. Some of these informal conversations were of such relevance for the research questions of the current study that notes were regularly taken for analysis and as a way of complementing the data from the observations.

Finally, all the teachers involved in the bilingual programme were invited to participate in a feedback session once a year on the development of the research. ${ }^{179}$ After a short presentation of the data collected, there was time for discussion with the participants. Topics were related to bilingual didactic methodology, language use and awareness, comparative language classes, development of bilingual materials, meta-linguistic skills and English in bilingual contexts. The feedback provided by the teachers was documented and used to complement the other data on the didactic setting.

[^94]In order to answer the research questions, these instruments were submitted to a content-based analysis, focusing on three main thematic areas: language use and interaction, methodological measures for bilingual language endorsement and development of academic language features in a narrative perspective. All observed episodes concerning these topics were ordered together and subjected to a qualitative analysis.

Thus, the analysis will initially focus on didactic aspects of the programme, followed by a reflection on language interaction within the classroom. The final section will deal with specific linguistic aspects related to production and reception, meta-language, academic narrative proficiency and a reflection on the role of oral and written skills. First, though, let us examine the class' development over the two years of data collection, as this had an impact on both language use and didactic methodology.

### 5.3 Evolution of the bilingual class across the two years of data collection

With the transition from primary to secondary education, the Portuguese-German class acquired approximately $50 \%$ new students, with very different degrees of proficiency in both languages. The substantial linguistic and cultural diversity of the original class had been somewhat homogenized throughout four years of continuous bilingual education (i.e., differences still existed but were acknowledged as belonging to classroom routine). However, the arrival of the new students, the change to a more subject-oriented teaching model and the new teachers caused a rupture in existing habits and brought about the need to create a new learning environment. This had several consequences.

Over the first four months, conflicts among the students disturbed the functioning of the class, resulting in the teachers feeling the need to establish rules and create rituals. Consequently, a considerable amount of classroom time was spent in repeating how to enter and leave the room, how to address teachers and colleagues, how to organize materials and copy what was written on the blackboard, etc. Consequently, the first classroom observations are full of references to these rituals and the teachers often complained that the students took too much time to find and open their books or to write down information. This changed to an established bilingual classroom organization, where all parties played their roles in an efficient manner.

However, this initial tension led the teachers to decide on the use of teaching methods that would allow tighter control of classroom events. Consequently, initial observations registered a largely frontal didactic organization, as well as a classical distribution of the students within the room, with two students per table facing the teachers and the blackboard. Later on, the atmosphere acquired a more experimental feel, and teachers stopped monopolizing classroom activities, but instead supported them. The classroom layout was also changed to make it more conducive to
group work, with four students sharing the same working space, not only facing each other, but also the rest of the class. This allowed a better view of classmates, thus furthering oral discussions.

### 5.4 Didactic considerations

As was the case during primary school, the Portuguese-German bilingual programme continued to have the same few fixed principles concerning its organization. Thus, during fifth and sixth grades, the teachers attempted to keep the amount of time dedicated to bilingual teaching, directly or contrastively, at $50 \%$ of all teaching time, which corresponded to twelve hours per week. In fact, this was not always achieved. The bilingual subject called "Gesellschaft / Sociedade" was mainly taught via team teaching with both teachers present in the classroom and comprised three hours of the weekly curriculum. The two hours of music class were taught by a bilingual teacher, who acted not only in both languages, but also included aspects from many of the Portuguese-speaking countries in his curriculum. The so-called "Tutorium" (two weekly hours dedicated to organizational matters, discussions and solving internal problems) was also taken by the bilingual Portuguese teacher, and so this too was used for bilingual instruction. Additionally, projects and field trips were also adopted in order to function as spaces for bilingualism, as mentioned above. Therefore, the students had a total of seven fixed bilingual teaching hours per week and more when performing other activities. On the one hand, this effort to ensure that Portuguese was present in a constant multifaceted way led to an increase in the use of this language in the fifth and sixth grades; however, German remained dominant amongst teaching staff as well in student interactions.

As for language instruction, the original theoretical consideration was that both languages, with a total of eight hours a week, would be taught contrastively. The teachers would adapt their curricula so that they could deal simultaneously with similar themes and could establish a bridge between the languages. However, partly due to organizational difficulties linked to everyday school activities, the German teacher followed the official Hamburg curriculum, while the Portuguese teacher constructed her own curriculum to match that of the German language. As a result, it was in this class that the contrastive aspect played a role.

According to the literature on bilingual education, didactic coordination between technical and language classes in both languages and within a long-range continuous model is likely to lead to successful results (cf. Ramírez et al., 1991; Lindholm-Leary, 2001 and the meta-analyses from Rossel and Baker, 1996; Thomas and Collier, 1997; and Greene, 1998). Most authors agree that a minimum of six years is needed before the positive results are manifested when these students are compared with others. However, several of these studies have proved that students taught continuously in both languages achieve better results in meta-linguistic
skills and in the acquisition of a third language. As previously mentioned, some research has provided evidence of a cognitive advantage on the part of bilingual students in relation to monolinguals when such a continuous and parallel support is given, and these results were confirmed in the lesson observations and teacher interviews conducted for this study. Six years of a dual-language education was found to produce an advantage for these students when compared to the two control groups, considering narrative skills, use of academic language and reading comprehension skills, as seen in the previous section. This was predominantly due to the daily didactic work within the classroom. When considering the classroom observations longitudinally from the first to the sixth grades, it can be seen that students evolved considerably, not only in relation to their proficiency in both languages but also in their work within the classroom.

But what about meta-linguistic skills or the acquisition of English? The interviews with the two teachers directly involved with the Portuguese-German class analysed in this research, and the impressions given by the other teachers involved in this programme at the school, highlight a clear advantage for all bilingual classes in the acquisition of English at all levels, as well as with respect to more elaborate resources for language comparison and awareness. The teachers agreed that these students not only learned the language faster but that they also learned how to learn a language and transfer these skills. As an example, the English teacher of the analysed class, who was simultaneously teaching two other submersion classes in the same grade, mentioned on one occasion that, in the middle of the sixth grade, the bilingual class had an advantage of approximately one year over the others, when considering the amount of content taught, and a non-measurable advantage when considering reading-comprehension, speaking, writing and language learning tools.

But how exactly does the bilingual instruction take place in this class? How does it lead to the results found here and to the recorded impressions or teacher's reports?

The general didactic approach in relation to language use revealed that instruction was mostly conducted according to the principle of linguistic transfer and not translation. More specifically, the switch from one language to the other was accomplished through a number of strategies other than direct translation, except in the case of very specific concepts. In the example below, in order to mobilize the students' knowledge of the polysemic words "Bank / banco," which has in both German and Portuguese several meanings, the Portuguese teacher wanted them to find the right translation in different contexts. However, as the students were so used to transferring knowledge rather than translating concepts, they first had to engage in paraphrasing, before they found the right word:

Mrs. C. asks the children to summarize the subject of the last class.
Renato explains that it was about types of "banks", using the made-up term "artes de banco".
Mrs. C. asks the children how the word might be rendered in Portuguese.
Some students find a paraphrase; however, the right word is still not found.
Marlene looks it up and gives the right answer ("espécies")

Mrs. C. writes it on the board as a heading and wants to discuss with it the homework: the children should use the dictionary to find out 6 different meanings for the Portuguese word "banco".]

As not all students are equally proficient in both languages, the students' comprehension had to be tested before instruction proceeded in the newly introduced language. Strategies used by teachers were listed across data collection and included:

- explanation of the content related in the previously-used language, mostly done orally by the students with the help of the teacher;
- completion of the information begun in the other language, assuring comprehension through oral questioning of the students;
- summary of most relevant information, elicited by the teacher and done orally by the students, as shown in the example below, where the teacher asks the students to summarize the task being made, in order to help those who could not follow the initial instructions given in Portuguese:

Mr. K. takes over the role of a compass before the class and poses questions to the directions. Almost all children want to participate correctly and answer properly.
When he is ready, he asks Mrs. C. to carry out the same exercise in Portuguese.
Mrs. C. does the same task completely in Portuguese. Because a few children could not follow it, she starts making a small summary of the task and asks the children to help her complete it.

- narration or re-narration when dealing with narrative items in the other language, also done orally by the students;
- paraphrase of extremely important content, which should be fully available to the students in both languages, also done by the students;
- transformation of the content acquired through one skill into another (eg. information heard in German would then be written in Portuguese). In the following example, the German language was used to report the content of a text and the Portuguese language is then applied to explain some of its aspects:

> Héctor is asked to read the text aloud in German, which he does perfectly. He is praised.
> Mr. K. folds the right side of the board. Now the children must report the contents without the text. Larissa does well and is praised.
> Now Mrs. C. folds her side of the board and asks for an explanation in Portuguese connected to the contents of the text.
> Renato, Sabine and Ana try it. Miguel does it with difficulty, and is praised for being able to express in Portuguese certain aspects of a text read in German.

Consequently, instruction seemed to flow between one language and the other, with minimal linguistic controls following the change, avoiding the slow and repetitive effect of a constant direct translation. Additionally, the use of such transfer mechanisms also had an impact on student motivation: balanced bilinguals could exercise transfer skills between the languages instead of being unmotivated to follow the content in their second language, while less proficient speakers were forced to pay
attention to instruction in their weaker language, as not all content would be made available in their strongest language.

The main didactic consideration regarding language separation in the bilingual subject was the absence of the strict use of the "one person - one language" principle. Although each teacher mainly addressed the class and answered in the language for which $\mathrm{s} / \mathrm{he}$ was responsible, they also engaged in code-switching. This was predominantly done by the Portuguese teacher and less by the German teacher. However, the language switch was seldom motiveless, and occurred for a number of reasons, recorded during observation. The most common language changes were a result of functional factors, as for example, a change in the task or mode of instruction or the need to move from content-instruction to organizational issues or disciplinary warnings. In the example below both teachers are not acting as mediators of classroom activities and are going from table to table checking the homework. Here they choose to answer in the language the question is asked in, and so it happens that the German teacher uses Portuguese and the Portuguese teacher German. However, students mostly respect the "one person - one language" principle.

> Mr. K. wants to check the remaining homework.
> As done previously, both teachers go to the tables and have a look at the individual work. Mr. K. is asked a question by Maria in Portuguese and answers in that language, while Mrs. C. answers Tiago's German question in German. Otherwise, the languages are generally separated by both children and teachers.

Code switching also occurred, although less frequently, on account of time, so that after using one language for a certain amount of time, the whole class changed to the other. Comparing language use during the fifth and sixth grades with primary school, it could be observed that this relaxed separation of languages, based nevertheless on rules of habit, motivated the students to use both languages in all contexts and to perceive the teacher as a model for language use. This was particularly true when the balanced bilingual teachers within the school acted as examples.

In the case of language instruction, where only one teacher was present, there was very little code-switching, as classes were conducted in the instruction language. However, in the Portuguese classes, time was often reserved for establishing comparisons with German, mostly concerning meta-linguistic aspects. This was always carried out in Portuguese and only the target concepts or words were mentioned in German and written down. As exemplified below, when dealing with meta-linguistic concepts, the Portuguese teacher always made sure that the basic vocabulary was available in both languages, so both German and Portuguese dictionaries were used in this class.

[^95]Some children find synonyms in German for the word and must look further for the Portuguese the dictionaries.

The contrastive use of German, and sometimes English, could be observed across the whole period of data collection. During the later phase of observations, the students predominantly established the parallel between the languages themselves before the teacher would explicitly ask for it. As a result, the Portuguese class became a space for reflection about language use and linguistic terminology, where even the less proficient students felt motivated to participate, as they could always resort to the their strongest language to ask for explanations and support their language acquisition. The German lessons, in contrast, were very much detached from the Portuguese curriculum and language. During observations, there was one single record of a brief comparison with the Portuguese language, but mostly this class was centred on itself and did not allow comparisons. Consequently, the less proficient students seemed unmotivated to participate orally in the class, particularly during the fifth grade, and only managed to be active when they became more proficient in German.

Regarding the specific question of language instruction, the general didactic principle behind it could be defined as continuous explicit language teaching, even when this was not the main pedagogical aim. It was often observed that when dealing with matters not directly related to language, the teachers always included linguistic aspects and asked for transfers between the languages, as in the example below. Although the theme of the class is not directly related to linguistic issues, the teacher uses content to support language endorsement, either alone or by asking other students for their expertise.

> Mrs. C. finishes the discussion and hangs posters in both languages on the blackboard.
> Now the children must explain a UNICEF-poster about children's rights in Portuguese, focusing upon the word "direitos".
> Some wish to intervene in Portuguese and try to explain the individual pictures.
> However, the children have more difficulties expressing themselves clearly and correctly in Portuguese. This is always bridged by the teacher, who questions the students or includes others in order to solve linguistic problems.

Thus, language was an aim and a means of instruction at all moments of the bilingual programme and it became increasingly so as the students got used to this latent linguistic presence and started taking the initiative to approach linguistic matters as they arose from content instruction.

More specifically, language instruction, when not dealing with meta-linguistic aspects but rather intra- or inter-linguistic skills, mostly implied an explicit gram-mar-oriented imparting of rules, which Lindholm-Leary terms "Direct instruction of language structure" (2001: 141). During team teaching, the target structures were both deductively and inductively explained and examples were given in both languages. Across the two years of observations, the teachers increasingly elicited grammatical explanations from the students.

Regarding both linguistic and content-driven subjects, the main didactic consideration observed and referred to by the teachers lay in the instruction of cognitively demanding contents by preventing less proficient students from setting the standard and pace of instruction. In the literature, this method is termed "content-based instruction" as it implies learning about something rather than learning only about language. This method, commonly used to describe approaches to integrating language and content instruction, has been applied in different ways. For example, Christian, Spanos, Crandall and Willets define it as "an approach to language instruction that integrates the presentation of topics or tasks from subject matter classes (e.g., math, social studies) within the context of teaching a second or foreign language" (1990: 187). Curtain and Pesola (1994) use the term in a more restricted sense, limiting it to only those "curriculum concepts being taught through the foreign language ... appropriate to the grade level of the students" (1994: 35). Krueger and Ryan (1993) also distinguish between content-based and form-based instruction and remark that the term discipline-based more appropriately captures the integration of language learning with different academic disciplines and contents. Met (2000) developed what she called a "continuum of content and language integration" in content-based language and subject matter teaching. In Table 24, the two extremes of content and language-driven teaching are depicted through six main features which essentially describe what could be recorded during classroom observations.

Table 24 - Content-based teaching in the two-way bilingual programme (based on Met, 2000).

## CONTENT-BASED TEACHING: <br> A CONTINUUM OF CONTENT AND LANGUAGE INTEGRATION

## Content-Driven

Content is taught in L1 and L2.
Content learning is priority and follows bicultural aims. Language learning is integrated. Content objectives determined by course goals or curriculum.
Teachers must select language objectives.
Students evaluated on content mastery.

## Language-Driven

Content is used to learn both languages. Language learning is priority and conducted contrastively. Content learning is intended. Language objectives determined by the German course goals or curriculum. Students evaluated on content to be integrated. Students evaluated on language skills/proficiency.

The bilingual subject matter classes were thus designed to enable students to acquire the school curriculum even when taught in a language in which they had limited proficiency. As stated above, teachers used a variety of instructional strategies to make abstract concepts and course information accessible to students who lacked the level of language proficiency required to master content in mainstream classrooms. Christian, Spanos, Crandall and Willets mention that in this type of content-based instruction "teachers may adapt their instruction to accommodate different levels of language proficiency in their classes ... The language teacher acts as a resource for
other teachers, and ideally helps those other teachers to increase the mastery of academic concepts and skills on the part of linguistic minority students" (1990: 191).

Apart from linguistic considerations, other didactic aspects seemed to play a role in the learning process of the Portuguese-German bilingual class. In particular, group organization came across as having a positive impact on motivation in general. The teachers mentioned that their main aim was to transform the immense cultural and linguistic heterogeneity, which is sometimes thought of as an obstacle to instruction, into a positive learning factor instead of trying to homogenize it. For this purpose, they balanced teacher-centred instruction with student-centred activities, for which cooperative learning forms were developed. The pairs or groups of students sitting together in the classroom were organized in accordance with two principles: firstly, the linguistic makeup of its members were designed to facilitate mutual support, and secondly, homogeneous low level learning groups were avoided (Rüesch, 1998). The establishment of such a heterogeneous cooperative learning environment was a result of a process and needed constant rethinking, thus avoiding stagnation of the class's dynamics.

Heterogeneity was dealt with through the principle of individual inner-differentiation of the students. After preliminary diagnostic tests and a few months of joint work, a set of learning aims for both languages was negotiated with each student, depending on their linguistic presuppositions upon entry into the class. Thus, although the students were learning together, a balanced bilingual would not have the same aims for the Portuguese language as a monolingual German student, who had just joined the class. This was made clear to the whole group so that futile comparisons could be avoided. In one interview with the Portuguese teacher, she mentioned that the assessment of the students through this principle was fairer but also very complex, as she needed to develop at least three different test-levels, while focusing on the same content. An example of such task differentiation which she showed obeyed the following scheme:
i. more proficient students: open question for own formulation of the answer;
ii. intermediate students: open question with partially formulated answer where spaces needed to be filled out;
iii. less proficient students: several smaller sub-questions with complete answers to be matched.

The individual aims of the students would be regularly renegotiated and evaluated, so that at the end of the sixth grade, one monolingual German student was actually being assessed with the instruments used for the more proficient students.

During the interviews with the teachers, two more didactic aspects were often mentioned as being of relevance to the functioning of the bilingual class and which could not have been easily recorded through sporadic observations. Most of the teachers reported that they not only taught the curricula but that they also taught learning strategies, particularly regarding languages. They would focus on teaching
how to learn a language and not only the language itself. When asked about the difference between their classes and others in this respect, they concluded that the linguistic awareness and meta-linguistic level achieved by the students allowed them to reflect not only about language but also about how to learn. In addition, they reported that the approach to this supra-level of linguistic and didactic teaching was often in response to students' own initiative.

Another essential feature seemed to be the question of the assessment of learning aims. Most teachers mentioned that they often offered opportunities for the students to check their own progress (through worksheets, tests, projects, etc), not with an evaluative school attitude but to increase the students' control of their own learning process. This may have been effective in increasing ambition, renegotiating aims and motivating language acquisition.

### 5.5 Interactional forms

Considerations about classroom interaction necessarily imply a reflection on the use of the oral speech form, as well as language use and choice within the bilingual class. In particular, the system of team teaching provides useful information about the role of each language within the programme and how they are used in classroom. The fact that the "one-person-one-language" method was not strictly adopted by the teachers, stressed the importance of the teacher as a model for language use, choice and change, which was increasingly perceived and followed by the students. An examination of the teacher-student and student-student interaction follows.

### 5.6 Teacher-student interaction

The most important observation when considering teacher-student interaction is the concern with a balanced use of both languages within the bilingual subject-matter and a contrastive method within the language classes. This was achieved through the use of different strategies.

While they were in primary school, the students could mostly choose in which language to address the teachers and answer questions (Roth, Neumann and Gogolin, 2007). Now, however, they were now increasingly asked to employ the language being spoken at that moment. At the beginning of the fifth grade, the students could still choose the language they preferred but were increasingly asked to transfer information and formulate their responses in the target language of the moment as exemplified below, where a student is specifically asked to use the Portuguese language:

Mrs. C. writes down who has not done the homework.
Sabine addresses Mrs. C in German and is asked to express herself in Portuguese, as she is quite able to do so.
The teachers check the homework table by table, Mr. K. in German and Mrs. C. in Portuguese.

At such moments, the teachers would act in a supportive manner and encourage other students to help. There was, however, a balance between free language choice and determination by the teachers.

Interaction was also marked by two other methods. First of all, a principle of rotation between the students with different linguistic principles was established, so that oral interventions were not monopolized by the most proficient and extrovert students. This was managed by the teachers, again in a balance between voluntary interventions and direct questioning. Secondly, the expected level for the oral interventions was determined by the students' linguistic presuppositions. When they were encouraged to intervene, a combination of foreign language and mother tongue teaching techniques was applied in order to valorize all proficiency levels within the asymmetrical learning group. For example, teachers would formulate open questions to the most proficient speakers and partially-closed or closed questions to the less proficient, while gradually increasing the degree of difficulty. Other students would also be asked to help and comment on the contributions. This process is exemplified in the following excerpt:

> Mr. K. explains to the students that the first task of the class is the already familiar "Europe game".
> Mrs. C. asks Sabine to explain the rules of the game to her colleagues in Portuguese.
> Then she formulates yes/no questions to the German-dominant children, until it is also clear for them what the task is about.
> Through the questioning with closed answers everyone was able to understand the task, without the German language being used for it.
> The children got the atlas from the shelves and were allowed to look at the European map for two minutes.
> Mr. K. and Mrs. C. checked to make sure the children were looking at the right side.

Another balanced interactional aspect was the relation between teacher-centred, and somewhat more frontal, instruction and student-initiated intervention, which led to student-student interaction, sometimes steered by the teacher. Although teachers tended to closely control classroom activities and interventions during the first observations, the last observations recorded that the role of the teacher was becoming more supportive and less shaping.

This led to a balanced use of the languages and higher levels of motivation towards oral contributions, which increased over the two years of data collection. The absence of non-systematic code-switching and direct translation turned interaction into an important way of confirming information and acquiring new knowledge in both languages. This dynamics of oral discussion was very visible during observations. In addition, both teachers mentioned that this class was particularly eager to intervene orally and engage in discussions in both languages. Linguistic heterogeneity was no obstacle but rather an enrichment, as it led to a cooperative atmosphere among the students, where each could find a way of emphasizing their strongest abilities.

### 5.7 Student-student interaction

Student-student interaction became increasingly autonomous and disciplined across the period of data collection. At first it was mostly dominated by the students who had already been attending the bilingual class in primary school and was steered by the teacher. Later, it became one of the main features when explaining or discussing themes. When intervening in full-class mode the students mostly had a cooperative attitude towards each other, trying to help the less proficient or complete each other's information, as in the example below, where the class supports Héctor in his task.

> Héctor has drawn the sun's course the wrong way round and must recite the poem once more, so that he can see where his mistakes lie. The other children listen quietly. The class is absolutely silent and one feels that the children want Héctor to recite the poem properly.
> Mrs. C. discusses the drawing with Héctor once again, while Mr. K. takes down the children's marks.

The number of differentiated interventions gradually increased, so that students would occasionally ask each other questions or make provocative comments to enrich discussion.

When working in groups, the interaction between the students was very much dominated by meta-communicative aspects; how to formulate certain aspects in one of the languages, or how to organize group work. Although much of this communication was conducted in German (the language predominantly used by the students outside the classroom), some of the groups had students who were more proficient in Portuguese and who would make their contributions in this language. Balanced bilinguals would usually respect the linguistic preferences of their peers when addressing them and would compose their projects in both languages. However, the monolingual Portuguese students' desire to learn German as fast as possible led to a growing use of this language in student-student interaction.

In language classes, interaction among students differed enormously. Although no Portuguese was heard during German lessons, the Portuguese class offered a place where all could also use and reflect on the German language. In full class sessions, the contributions would then be translated into Portuguese with the help of the whole class, and during group work both languages were used equally, as seen below.

Some words cause difficulties. The students should first use the monolingual Portuguese dictionaries.
Then they may look up the word in German and explain it.
Mrs. C. uses a quarter of the board to write down the vocabulary in both languages.
Everyone wants to answer and Silja (Group A) does so in Portuguese, getting the right answer.
Mrs. C. summarizes all the answers on the board.
Thus, the linguistic composition of the class seems to play an important role in language choice and use. Roth, Neumann and Gogolin claim:

Already in the first year of the school programme, it appeared that the linguistic composition of the classes provides an important basic condition for the students' learning progress. Not only does the availability of knowledge in the partner language and belonging to one of four linguistic groups contribute to different acquisition trajectories and results, but also the heterogeneity which exists in this regard in a class. ${ }^{180}$ (2007: 35)

The fact that this Portuguese-German bilingual class included a few students with initial reduced proficiency in German gave an important role to the Portuguese language. These students not only brought new linguistic knowledge, but also very different cultural facets, as they came from Portugal, Angola and Cape Verde. They had also attended school in their home countries, and this experience was discussed in class, allowing an intercultural comparison of school systems and de-centring the students' perspective away from the German school.

## 6. Scaffolding towards academic language(s)

Most immigrant children, when attending school in the host country, come into contact not only with written language, but also with writing in the second language. Developing the representation of Figure 2 in Chapter 2, this passage can be depicted in Figure 39.


Figure 39 - Language dynamics of immigrant children when entering an educational institution (based on Roth, 2006).

From a context-embedded and cognitively simple communication in their first language, focused mainly on speaking and listening, immigrant students must acquire

[^96]within a few years a context-reduced, cognitively demanding proficiency in their second language, mostly focusing on reading and writing. In bilingual classes, this transition must happen not only from one language to the other, but also within both languages, meaning that the students must develop eight different skills: speaking, listening, writing and reading in both languages. Additionally, most of them are at different stages of development within these skills, depending on their linguistic background. The aim of the programme is thus to find a balance between these eight skills for all students, after a continuous long-term bilingual instruction. But how exactly is this cognitive academic level visible in the Portuguese-German class? How it is didactically implemented in both languages in such a learning environment marked by linguistic diversity?

Models of content and language integration determine the type of language students will learn. When content drives decisions, as is the case in content-driven programmes, the language students' learning will be shaped by the language of the content. As Genesee (1994) observes, implicit language learning in immersion results from classes in which content is the focus. While all areas of the curriculum share a core of language in common, each discipline also has its own unique terminology and discourse style. Indeed, initiating second language learners into the discourse community of a given academic discipline can be a significant objective of content-based instruction (Krueger and Ryan, 1993; Widdowson, 1993). However, students must not only learn the particular terminology of the different discipline but more specifically a cognitive academic register which traverses all subjects. In addition, this should be achieved in both languages.

In the interviews, the teachers explicitly mentioned discussing the difference between everyday language and school language with the students and commented that one should be proficient in both. Thus, not only language in general became a persistent continuous aim within the class but the use of a more abstract and academic register in both languages. Teachers explained that, when performing oral tasks in class, they would predominantly use a language closer to the written form and increasingly required that from the students. Indeed, observations included more and more such moments, where students' responses were taken, analysed and in a joint process reformulated into denser, more precise academic language form. Such moments happened most often during oral debates, narrations or explanations. Teachers would start by motivating students to intervene, then moderate their contributions, and towards the end of the task, would seize upon one or two statements with significant content and stop to reflect upon it. Often the fact that their last statement was repeated by the teacher was enough for them to know that their phrasing was not register-compliant. When such moments became a ritual, students would tend to laugh at their own words and would themselves start to deconstruct them in order to be able to re-phrase. Teachers and peers would help, so that the end result was normally a sum of several contributions.

For this process of linguistic transformation several strategies were observed during data collection. Within the same language, students would paraphrase, re-
peat with synonyms or rephrase their statements, depending on the extent to which the original intervention complied with the "academic" standard. For this, dictionaries were sometimes used. When attempting a transfer of these final products to the other language, which happened often in the bilingual subject, such an underlying modelling of the language was not necessary, as the cognitive path was already laid out and the actual terminology was rapidly found. However, transformation was quicker and less problematic from Portuguese into German, as students had fewer difficulties in reaching academic register in that language.

In fact, in a study designed to enhance academic language proficiency in a Spanish immersion programme in the United States, Cohen and Goméz (2002) conducted a thirty-hour intervention in a fifth grade using similar strategies to model linguistic use. They concluded that the intervention generally motivated students to use more sophisticated language to explain their ideas. It was observed that although complex grammatical forms were used in moderation, students tended to make use of them when the grammatical input was explicitly supplied. More specifically, the low- and intermediate-proficiency groups benefited most from the intervention, as they tended to perform better in quality and quantity of academic vocabulary and in defining academic terms in Spanish. The authors thus concluded that if students showed poor proficiency in the academic language associated with the curriculum, then it might be useful for the teachers to explicitly intervene, emphasizing aspects of academic language. The teachers in the Portuguese-German bilingual class felt this need to mediate the development of academic language(s) and increasingly worked explicitly on it.

Similarly, it can be concluded that merely exposing second language learners to mainstream classroom speech does not adequately support their language development, as, according to Mohan, it "cannot be assumed to provide optimal language learning opportunities as a matter of course" (2002: 108). More accurately, subject teaching should thus be planned to provide the specific contexts for the acquisition of academic language. By exposing students to academic input in both languages and helping them to gradually develop and express their ideas, the teachers of the bilingual class are using a common strategy to increase academic language proficiency.

Drawing on Vygotsky's concept of the zone of proximal development, perceived as the distance between the actual development level of the individual and that achieved through steered instruction (1978; 1987), learning is seen as occurring within certain stages and taking place among individuals, rather than within an isolated individual. This sociocultural view of learning sees the development of cognition as a result of participation with others in goal-directed activity. The idea that knowledge happens through involvement in a common activity and that "by contributing to joint meaning making with and for others, one also makes meaning for oneself and, in the process, extends one's own understanding" (Wells, 1999: 108), has been given a pedagogical approach. According to Gibbons "the term scaffolding is increasingly being used as a metaphor for the particular kinds of support
given to students to enable them to successfully complete a task" (2007: 703). She defines scaffolding as the support which will enable the learner to accomplish a task which they would not have been able to manage on their own. Scaffolding can thus be seen as the operationalization of the notion of zone of proximal development (Wells, 1999), as this sort of assisted performance involves not simply "helping to do" but "helping to know how to do." Gibbons (2007) argues that teachers' mediation in school involved communication between two different types of discourse: the students' current levels of knowledge and second language abilities, on the one hand, and the broader knowledge to which they are being introduced, and the appropriate language by which this is expressed, on the other. Through the mediation of the teacher, the students' contributions within classroom speech are gradually transformed into a sort of specialist school discourse. While giving examples of scaffolding in class, she claims that the teacher used a number of strategies to achieve this. These included:
... encouraging students to clarify or reword what they said; questioning; modelling aspects of the lexicon; mediating grammar associated with the register of science; talking explicitly about language; and at times, when students were at the outer limits of what they were able to say alone, recasting or reformulating student contributions in more register-appropriate ways. (2007: 705)

Indeed, Gibbons' description matches what was observed in the bilingual class, as exemplified below.

> Mr. K. starts a brainstorming exercise on the subject "the Roman Empire". The students should first explain the word "world empire".
> Mr. K. writes the children's ideas systematically on the board.
> German functions as an content language, while Portuguese provides for the
> organization. Mr. K. is responsible for the content and Mrs. C. co-ordinates the form of the tasks and answers. Mrs. C. several times gives explanations with regards to the form of the answers and the purpose of the task.
> With some of the children's answers, Mr. K. stimulates them to reformulate them "in other words" and explains why their answers could be considered vague or inexact. For this purpose, Mr. K. takes up words like "things" (semantically imprecise) and asks the children to improve them.

The students learn, under the guidance of both teachers, to express themselves more specifically and more precisely. Circumscribing of concepts elicits phenomena of a typical educational language, in the form of statements starting with "I think" or "I believe". A routine of specification is perceivable. The students react positively if they have exactly explained a word.

Mrs. C. praises the "scientific" formulations of the children.
The interaction concerning the meaning of "world empire" goes on, while the students are asked to find more general concepts for some of the ideas gathered on the board. Mrs. C. operates further on at a meta-linguistic level and explains the task.

Accordingly, students were permanently confronted with language and with the importance of a specific academic register to be used at school. When they acquired this in one of their languages, predominantly through teachers' mediation, they were able to transfer the knowledge into the other language.

### 6.1 On oracy and writing

Approximately $80 \%$ of the observed classroom time was dedicated to performing oral tasks. This was divided into several types of language use, depending on the aim of the activity. Hence, oral speech served organizational and disciplinary considerations, rituals and habitual classroom discourse, task solving, clearing up questions, explaining, arguing, narrating, discussing, etc. In fact, the use of oral speech seemed to be much more differentiated and dynamic than writing. Students wrote down information from the blackboard, answers to questions in work sheets and tests or following a script for a project. Occasionally, they also engaged in free creative writing. However, a considerable amount of the writing was assigned as homework to be done outside the classroom.

It was while explaining, discussing or narrating that oral speech was explicitly used to convey both content-related and language-specific knowledge. As mentioned above, teachers often used and elicited from the students a specific academic register, closer to written language, while for more organizational tasks, they used a more colloquial language style. Martin (1984) claims that this alternation takes place along what he termed a mode continuum. Rather than classifying texts as spoken or written, the mode continuum shows how text features change along a spoken-written continuum: face-to-face conversation requires fewer linguistic resources than a written piece where the writer may be addressing an unknown audience who has not shared in the experience. Thus the more abstracted the text is from a situation, the more linguistic resources are needed to create meaning through language alone. According to Martin, it is not the form - oral or written that determines the type of language to be used, but the situation. During classroom observations, it could be observed that teachers moved along this continuum and helped students, in their oral speech, to move toward a language register closer to the written form, using a sort of academic scaffolding, as exemplified below.

[^97]The children react immediately to it and wish to intervene. The critical consideration of the story immediately leads to another level of argumentation in which the children give their opinions through sentences beginning "I believe" / "I think", and express themselves "in writing". They dissociate themselves from the text and ask vital questions which produce a bridge between their real world and the mysterious world of the legend.

Since the 1960s and '70s, several researchers (Wilkinson, 1965; Britton, 1970; Barnes, 1976; and Tough, 1977) have highlighted the role and importance of spoken language across all areas of the school curriculum, which until then had valued the written form almost exclusively. However, the role of spoken discourse in the acquisition of academic knowledge, compared with research on written discourse, is still not as well recognised (Gallas, 1995). During the process of analysing classroom discourse within the Portuguese-German bilingual class and trying to explain the results of the current study, the need for more research into the development of academic language through oral speech became apparent. The significantly higher performance of the dual-language students in the oral task compared to both submersion groups leads to two suppositions (which regrettably cannot be confirmed through the data as no observations were conducted for these groups); firstly, that this form of intensive work on and with oral speech did not take place in the control groups, particularly in the case of the monolingual Portuguese students, and secondly, that academic oral speech may have an influence on written proficiency, when we consider performance as a whole.

### 6.2 On narration

Narration plays a big role during primary school, after which it gradually gives way to other forms along the school curriculum, such as reporting, explaining, summarizing, etc. According to Conle:

The use of story has been recommended for primary and intermediate education, in the field of art education, as well as for moral and environmental education. It has been discussed as an important, though often neglected, feature of teaching. (2003:3)

However, she notes that:
There has been no comprehensive delineation of its various components, no differentiation in the educational functions of these components, and no extensive proposals on how one might see the connection between narrative and curricular learning outside the traditional use of narrative in literary education. (Idem).

Narration within the bilingual class goes beyond the use of literary texts, traversing a number of activities. In order to describe them, Genette's general distinction between "narrative," "story" and "narrating" (1980) will be used as framework. Aimed at distinctions in literary works, it encompasses a tri-dimensional perspec-
tive of the narrative concept, depending on the focus of the analysis. He defines narrative or narrative statement as "the oral or written discourse that undertakes to tell of an event or a series of events" (1980: 25) and they are the object of textual analysis, mostly also of meta-narrative aspects. In the bilingual class, students read two whole narrative texts in both German and Portugues, exploring them with the aid of the main traditional categories, such as time, space, characters, narrator, etc. The following example shows an example of narrative work within the Portuguese class.

> The trainee teacher asks the children whether they can identify the kind of text they have just read and Marlene has the answer.
> Now the students are asked to summarize some features which characterize the text as a story. Everyone wants to give suggestions. The trainee comments and puts further inquiries. Some key words are written on the board.
> Indeed, the students seldom give up on an explanation because of lack of vocabulary. Some use examples instead or tell small stories.
> Tobias reads the definition of narration presented in the book.

They also read shorter passages, which served as basis for vocabulary or grammar acquisition but were always subjected to interpretation questions. Furthermore, they were occasionally asked to finish these short texts by engaging in creative writing. These texts would then be read aloud and discussed in class. As a result, the students developed meta-narrative knowledge and the ability to both talk about texts and write them. Moreover, as they performed these narrative exercises in both languages and always worked contrastively, they were able to transfer knowledge and increasingly develop a bilingual meta-narrative awareness.

Genette defines a story as "the succession of events" that are the subject of the speech event. Story is the "totality of actions and situations, taken in themselves, without regard to the medium, linguistic or other, through which knowledge of the totality comes to us" (idem). During classroom observations, there were many moments where stories were told, by the teachers, students and guests who visited the class. These were, in the main, a set of self-lived events which served as an example for an explanation or an argument during oral discussion in class. It was often observed that they contained intercultural elements, such as descriptions of schools in Brazil or of family relations in Angola, to be used as basis for oral discussions. At these moments, the class was focused and a narrative dialogue took place, as students asked for details or more information and told their own stories. These intercultural narrative moments would normally be commented on by the teachers, before introducing another task.

Finally, for Genette, there is also the act of "narrating," the act of telling, which includes the situation or form in which such acts take place. The bilingual students were progressively made aware of the importance of the form or context of their statements. Therefore, there was much discussion about the use of language in oral and written form, in and outside school. While narrating this was particularly evi-
dent. As can be seen by the productions of the students in the current study, they were all aware of how a narrative text functions and what elements needed to be present. In addition, they could transfer this knowledge into their oral productions, as they knew that this was a situation where school narration was to be applied. None of the students wrote, dictated or told their stories as they would have narrated events to their colleagues or friends. Instead, they included literary features, attributed names to their characters, used attributes and temporal markers and tried to endow their productions with expressive linguistic terms. Such a performance was certainly the result of a process of joint work on narrative academic language use, where teachers, as mentioned above, helped students reconstruct their initial narrations and turn them into more precise, expressive and sequential statements. Principally, confrontation with their own statements would help students de-centre from the narrator perspective and assume a heuristic perspective over their own language use, which would allow them to be critical and re-construct their statements.

### 6.3 Note on the role of the school

Although not directly related to the present topic, a few notes should be made about the role of the host educational institution in such a bilingual programme. Data collection led to many impressions of the school and the feedback from the teachers suggested that such a consideration would be of relevance. It seemed vital for the functioning of such a model that clear leadership structures were negotiated and established, whilst leaving room for equal participation of all involved in decision making. This chain had to be well-informed of all activities taking place and needed to document activities. For this purpose, teachers kept a record of the class' progress where all materials and activities were noted. There were also regular meetings with the teachers involved in the bilingual programme.

Another important feature seemed to be the development of standards which would then be evaluated. The bilingual classes conducted tests and the director, school psychologist or social assistant would visit them on occasion. This openness, but also control of individuals and performance, was perceived by the students as an interest in their learning process which increased their self-confidence. They often mentioned that they were, in a way special, and therefore received a lot of attention.

Finally, two other aspects apparently played a role in the positive functioning of the programme and which also follow the decentralized orientation. Firstly, there was a further education programme designed for all the teachers of the programme, which allowed an exchange of information with the teachers of the other bilingual classes with other languages; secondly, these teachers could count on the support of the school in organizing activities with the community. Students went to concerts,
festivals, theatre, radio shows, etc, thus creating a network outside the school environment.

## 7. Conclusions: theoretical framing of the results

The enriching aspect of bilingualism may follow directly from its most maddening complication: it is precisely because the structures and concepts of different languages never coincide that the experience of learning a second language is so spectacular in its effects. Ellen Bialystok and Kenji Hakuta

This section will discuss the results of the study in the light of theoretical frameworks proposed by Derrida, Even-Zohar and Reich.

According to the PISA research group:
One purpose of educational institutions like the schools is to offer the same and fair chances for the attendance of educational institutions and development of competence in children and adolescents regardless of their social and ethnic origin. ${ }^{181}$ (PISA-Konsortium Deutschland, 2007: 309)

However, school achievement is still very much related to origin and social factors, particularly in Germany. Thus, when considering the results of the present study, one might be tempted to claim that this two-way bilingual programme has contributed to educational equality.

There were no significant correlations in my sample between general narrative proficiency and the families' socioeconomic level, confirming the results from the "Grundschule" (Roth, Neumann and Gogolin, 2007). Nevertheless, the strongest negative trends were found for two-way bilingual students. When considering the particular case of cognitive academic language skills, the differences between the three groups in the sample become more accentuated; there are positive significant correlations between socioeconomic status and the use of academic language items in both comparison groups, while for two-way bilingual students, academic performance seems to be independent of the family's educational level and professional situation.

Individual cognitive skills positively influenced the narrative performance of all three groups, particularly in the case of Portuguese. General task accomplishment and the use of literary features seemed to be particularly connected to cognitive skills while cohesion and lexical diversity were found to be less related. Academic language was also closely related to cognitive abilities. In German, nominalization and participles revealed to be the strongest categories and in Portuguese, attributes and participles.

[^98]As for reading comprehension, this has proven to be an indicator of narrative proficiency. In particular the use of academic language items was strongly connected to reading skills. In German the students that performed best in the readingcomprehension task tended to use more attributes and compound words, while in Portuguese, attributes and participles were the two strongest categories.

Thus, the performance of the two-way bilingual students showed no relation to their families' socio-economic level, though it was related to cognitive skills and predicted school achievement. Although this group had the lowest ISEI in the whole sample and the lowest performance in the cognitive skills test, it achieved the highest results in narrative performance in both languages and had a more differentiated academic language. Their school achievement was correspondingly higher than that of the other two groups. Research has proven that bilingual children are superior in story-telling skills to monolinguals due to the fact that, as Baker suggests, they are "less bound by words, more elastic in thinking due to owning two languages" (1996: 154). He mentions a study comparing monolinguals and bilinguals (aged between four and six), conducted by Ianco-Worall, where bilinguals were two to three years ahead of their monolingual peers in semantic development. But how does this explain the difference in the performance between the two groups of bilinguals? Answers might arise from the didactic setting.

According to van Lier, in situations where the direction of the discourse and the relevance of contributions are jointly determined by the group, there is the potential to change learning situations and participant roles, and allow the direction of the discourse, and the model itself, to be shaped by all participants (1996). This sort of negotiated language practice is called progressive discourse (Bereiter, 1994; Wells, 1999) and it is the result of four joint commitments amongst participants. The first of these is to aim at common understanding; the second to frame questions and propositions in ways that allow evidence to be brought to bear on them; the third to expand the body of collectively valid propositions, and the fourth to allow beliefs to be subjected to critique and criticism if this will help the discourse progress. This negotiation towards a common aim and a common (bilingual) discourse is one of the main didactic features within the Portuguese-German class. Moreover, instruction closely follows the premises of language across the curriculum methodology. It aims to facilitate the use of languages in a variety of meaningful contexts and to motivate students to use their multilingual skills in every class they take at each level of the curriculum (Consortium for Languages Across the Curriculum, 1996). Language is not only an all-present aim of the bilingual curriculum of the two-way programme, as in the particular case of academic language featured continuously and increasingly during the two years of data collection. Hence, it could be claimed that instruction in this class follows the method of bilingual academic language across the curriculum.

In order to systematize other relevant features of bilingual instruction, a number of theoretical approaches will be attempted. The general methodology for improving language use in the two-way bilingual programme, through progressive dis-
course and scaffolding strategies, operates according to a triangular dynamic involving the construction of statements, followed by a joint and systematic deconstruction of the original statement, which then allows a reconstruction into a more academic language style. The concept of deconstruction, based largely on the work of Jacques Derrida, is a poststructuralist theory directed, in the first instance, towards the (re)reading of philosophical writings. It is current in contemporary philosophy, literary criticism and the social sciences, denoting a process by which texts and languages appear to shift and complicate in meaning when read in light of the assumptions and absences they conceal within themselves. More specifically, subjects relevant to deconstruction embrace the philosophy of meaning in Western thought and the ways in which meaning can be constructed by Western writers, texts, and readers and understood by readers. The discussion around the exact meaning of deconstruction has reached no consensus among researchers ${ }^{182}$ but most agree that it describes Derrida's particular methods of textual criticism, which involve discovering, recognizing, and understanding the underlying - and unspoken or implicit - assumptions, ideas, and frameworks which form the basis for thought and belief. Deconstructive reading can thus be performed with any text, as it is a theory of reading and not directly a theory of literature. Derrida generally deconstructs philosophical writing, screening metaphysical contradictions and the historicity of writing which lays claim to the absolute. In fact, the more universal and meaningful a text claims to be, the more powerfully it can incite deconstructive reading. Thus, a text implies a raising of meaning, while at the same time it also calls forth the potential for a counter-reading. Another important feature of deconstruction, and which complicates a definition, arises from the fact that deconstruction cannot escape itself; the word is subject to the linguistic limitations and effects which it maintains in its own definition. Attridge sums up several statements on the concept:

> We now know - or have no excuse for not knowing - that deconstruction is not a technique or a method, and hence that there is no question of 'applying' it. We know that it is not a moment of carnival or liberation, but a moment of the deepest concern with limits. We know that it is not a hymn to indeterminacy, or a life-imprisonment within language, or a denial of history: reference, mimesis, context, historicity, are among the most repeatedly emphasized and carefully scrutinized topics in Derrida's writing. And we know - though this myth perhaps dies hardest of all - that the ethical and the political are not avoided by deconstruction, but are implicated at every step. (1995: 110)

When a student makes a statement and creates meaning, the teachers of the bilingual class take a deconstructive approach to the statement, aiming to change the form and not the meaning. In his interactional constructivism approach, Reich claimed that every construction carries with it its own exclusion, as it always re-

[^99]quires critical deconstructions (1998). His theory of social constructivism based on linguistic theories and methods is designed to observe and analyse the meaning of cultural and "lebensweltlich" interactions in the re/deconstruction of realities. Reich claims that every production implies omission, and that the observation of such omissions is necessary for the deconstruction of one's own authority. This is the contradiction also observed in the bilingual classes; the more statements are constructed, the more critically they are deconstructed by the student himself or by an observer. Thus, a linguistic deconstructive methodology is used with the aim of developing bilingual academic proficiency. The establishment of such a deconstructive linguistic habit was itself a deconstructive process, which developed, alternating between construction and deconstruction, over the two years and was then established to become part of the common knowledge within the class.

However, another trend arises from the use of language within the bilingual class, as well as from its intrinsic interculturality. The bilingual class is not only immersed in a dualism between two languages, between construction and deconstruction but also between central and peripheral perspectives. In order to elaborate on the latter, I will draw on Even-Zohar's polysystems theory (2005), developed in the 1970 s , to account for the behaviour and evolution of literary systems, and which strives to explain dynamics, diversity and change in cultures. It emerged as a response to positivist discourses common during the late 1960s and early 1970s. Instead of a static, a-historical text-based approach to literature and culture, EvenZohar suggested a dynamic structuralism. This static approach is best exemplified by Saussure wherein structuralism is a science that attempts to uncover all of the structures that underlie all things. Saussure then, proceeds with a synchronic study of language. However, Even-Zohar claims that "synchrony cannot and should not be equated with statics, since at any given moment, more than one diachronic set is operating on the synchronic axis" (2005: 2). This implies that a system is comprised of both synchrony and diachrony, yet on the other hand, when separated from each other, they both constitute a system in themselves. The polysystem then is a "multiple system, a system of various systems which intersect with each other and partly overlap, using concurrently different options, yet functioning as one structured whole, whose members are independent" (idem: 3). These systems obey a hierarchy and "it is the permanent tension between the various strata which constitute the (dynamic) synchronic state of the system" (idem: 5). Consequently, there is always an ongoing tension between the centre and the periphery of a system. However, as Even-Zohar notes, "with a polysystem one must not think in terms of one centre and one periphery, since several such positions are hypothesized. A move may take place, for instance, whereby a certain item (element, function) is transferred from the periphery of one system to the periphery of an adjacent system within the same polysystem, and then may or may not move on to the centre of the latter" (idem). This permanent alternation between centre and periphery was often observed within the dynamics of the bilingual class. Students and teachers were constantly being asked to simultaneously occupy the centre of their own statements
and to see them from a peripheral perspective. Both languages alternated equally between centre and periphery, and cultural assumptions thought to be central would be seen in the light of another peripheral cultural perspective and offer their place in the central canon. This overlapping of changing perspectives in a multi-linguistic and multi-dimensional didactic arena contributes to a constant decentring on the part of the students in relation to their own language use and cultural beliefs, which allows change and evolution.

In summary, bilingual instruction not only aims at a balance, with regard to classroom interaction, languages and students' contributions, but also involves strong dynamic movements between construction and deconstruction, centre and periphery.

## XI. Conclusions: development of bilingual narrative competence in a two-way bilingual model

Germany is clearly a multilingual country, if we consider the number of languages spoken every day and their vitality and persistence. However, this has yet to be acknowledged in political mainstream discourse, institutions and legislation. Officially, Germany is a monolingual country, where a single language is used institutionally, for legal and official purposes, and also in education. Thus, to a great extent, everyday multilingualism is an issue that concerns only minorities. In the school context specifically, it is largely related to students from families with low economic and educational capital, whose linguistic proficiency in German is insufficient, and who are often disruptive in class. This is despite the fact that most teaching staff have a very positive attitude towards multiple language acquisition and consider foreign language skills necessary in today's society. The crux of the matter is what languages, what speakers, where and how are they spoken.

In order for the multilingualism of immigrant minorities to be acknowledged, accepted and valued in the same way as multilingualism is promoted in international schools, for example, the German education system must adopt multilingual habits in everyday communication and promote ways to officially capitalize on the specific linguistic skills of immigrant minorities. This can only be achieved through school. More specifically, dual language education models like the one at the Rudolf Ross School in Hamburg can work as a way of increasing the social and economic capital of minority languages within both host and immigrant communities. But how exactly does this capitalization of linguistic potential work? In order to answer this, I shall respond to each of the research questions by one.

## How can cognitive academic language in bilingual schooling contexts be defined and what is the role of the first language in its development?

As this study has shown, academic language can be characterized as an overall cognitive skill used in educational contexts (oral and written), and which differs qualitatively from everyday speech. This would approximately correspond to Cummins' definition (1979a). It may mean that they use objective and impersonal formulations, when they are attempting an explanation (Roth, Neumann and Gogolin, 2007), or that they use expressive and differentiated vocabulary if they are narrating. Those who acquire academic language skills are normally able to adapt them to different genres. However, academic proficiency also operates at a microlevel, as it implies the use of different language-specific tools. In the case of German, the most significant cognitive academic linguistic forms found were the use of attributes, nominalization and compound words, while for Portuguese, attributes, participles, and the gerund were important, as subordinating elements play an im-
portant role in academic proficiency. Thus, it can be concluded that, in both languages, students with academic proficiency made use of linguistic resources to endow their text with differentiated vocabulary, particularly by conferring expressivity through the application of adjectives or participles to qualify nouns or by making the nouns themselves more precise by using compound nouns (particularly in German).

It can thus be concluded that school achievement seems to be related to certain aspects of a cognitive academic linguistic style and not to a language proficiency related to colloquial everyday speech. In this study, the students that made use of certain linguistic structures typical of this style achieved better results in reading comprehension. In the promotion of this school language, the importance of the students' first language, in the form of a two-way bilingual education model, seems to be beyond dispute; after six years of two-way bilingual education in German and Portuguese, the students with different language abilities at the outset could not be statistically distinguished from each other. Therefore, the use of academic language in bilingual school settings can be summarized as follows (Figure 40):


Figure 40 - Schematic overview of the use of academic language in bilingual school settings.

For bilingual students, who are accustomed to using both languages academically in their daily instruction, access to the macro and medium levels is facilitated by constant exercise in both languages and by the transfer of skills. This gives academic language a tri-dimensionality, operating between the three levels, two languages and the meta-linguistic skill of academic transfer.

## How can narration be defined as part of an academic language? And how does it operate in bilingual school contexts?

Narration in school contexts varies from literary and everyday spontaneous narrations, in both oral and written forms. When performed in the school context, students must add to their narrative skills the component of task achievement, as they are aware that they must fulfil all aspects posed by the task. When this proficiency is assessed, it is highly connected to other narrative skills, so that one might speak of a narrative task proficiency in school contexts.

Additionally, the use of specific features to confer a literary quality upon the productions, as analysed by Dehn (1999) and Roth (2003), was found to be particularly relevant. Furthermore, students who shaped their productions in relation to such features also achieved better results in general narrative proficiency, as well as in reading comprehension.

Syntactically, the more proficient students made more use of hypotaxis, such as main clauses followed either by one or more subordinated clauses. Typical of narrative proficiency are temporal clauses, although the use of causal and final clauses could be identified as an advanced narrative proficiency. Once again, the students who shaped their texts using such syntactical elements also performed better in the measure for student achievement. From a lexical perspective, the differentiation of verbal, nominal and adjectival vocabulary characterizes educational narration. Nevertheless, adjectival differentiation and expressivity were revealed to be the most relevant item for narrative proficiency. Accordingly, elements leading to lexical precision were identified as typical narrative elements for both languages.

Furthermore, a balanced combination between textual-organizational elements and expressive vocabulary was also found to play an important role in bilingual narrative proficiency. Students who framed their productions and created textual coherence and cohesion through a network of temporal and causal relations, while at the same time using expressive and precise vocabulary, achieved better results in reading comprehension, as well as in all other narrative categories.

## How does oral and written academic language acquisition develop in a bilingual model? Are there transfers?

As stated above, academic language in educational contexts is a macro-level cognitive skill, which is not typical of one particular form, but rather is applied whenever appropriate, according to the demands of the specific interactional situation. While executing a written narrative, students are aware that this is a task requiring academic proficiency, and when acting orally within the classroom, they have to decide which register to use, particularly in the second language (Gibbons, 2007). For example, while talking to a colleague or to the teacher about non-academic subjects, they can apply their conversational fluency; while solving school tasks, academic proficiency is required. This is where transfer of academic proficiency skills
plays a role and unites written and oral forms. Thus, differentiation should not only be established between written and oral forms, but rather between conversational and academic form- and content-specific situations.

When considering the specific case of bilingual students attending the dual language instruction programme, access to this academic mode in both forms is enhanced through the fact that students are constantly being confronted with it in both languages and are thus impelled to transfer such skills. Again, the meta-linguistic level implied in the transfer of academic proficiency plays an important role in the acquisition of and willingness to apply such skills.

## How do students in bilingual models perform in relation to students attending submersion classes? Does the development of coordinated literacy lead to higher educational achievement in both languages?

In all categories established for this research, the two-way bilingual students displayed a considerable advantage when compared to other bilinguals in submersion classes. The six-year coordinated bilingual programme led to the disappearance of the linguistic differences that had existed at the outset, and the performance of bilingual students could generally be compared to that of monolingual German students. These results are particularly constructive when considering that the students in submersion classes have been coached in dual language literacy since the first grade, while some of the bilinguals in the two-way programme were not even literate in one of their languages when they joined the class. Nevertheless, at the end of the sixth grade, their performance was indistinguishable from that of their literate peers. In addition, the Portuguese-speaking students that had attended the programme from the beginning achieved a degree of narrative proficiency comparable to monolinguals in Portugal even though not all of them were literate beforehand.

Furthermore, six years of bilingual instruction yielded school outcomes that were independent not only of the families' socioeconomic status and educational level, but also of the individual student's cognitive abilities, thus contradicting results from international monitoring studies (cf. PISA or PIRLS/IGLU).

Taking into account that such programmes predict cumulative effects (Thomas and Collier, 1997), the performance gap between these groups is likely to become much greater throughout secondary schooling.

## What didactic factors influence student outcomes in bilingual education models?

Several didactic aspects were found to play an important role during the six years of the Hamburg bilingual schools and also during the two years of data collection for the present study. The most important are, however, all directly or indirectly related to language use within the classroom.

First of all, it was noted during the classroom observations that the language instruction given on the programme was predominantly comparative and contrastive, and based on the transfer of skills rather than translation of expressions. Language instruction was also an ever-present feature across the curriculum during subjectmatter teaching. In this process, the teacher becomes the model for accurate bilingual language use.

Furthermore, language instruction was carried out explicitly, as suggested by Lindholm-Leary, through the direct teaching of language structure (2001). Students were thus constantly being made aware of grammar and form-oriented aspects, thereby also acquiring meta-linguistic skills. These were also required when transferring from one language to the other.

In acquiring academic skills, two main factors were revealed to be important: firstly, the use of scaffolding techniques to attain a particular linguistic aim, and secondly, the constant construction and critical deconstruction of linguistic statements, in order to improve them or adjust them to an appropriate register. This is only possible through the stipulation of cognitively demanding aims designed to attain a balanced bilingual academic proficiency overall, and which are constantly being renegotiated for each student. Similar to the notion of the "zone of proximal development" (Vygotsky, 1978), students receive cognitively demanding input, which obliges them to deconstruct their current knowledge and reconstruct it using elements from the next cognitive stage.

As regards organizational aspects, the explicit use of linguistic heterogeneity within the classroom was an important factor within the dual language instruction programme. Strong students were used to support others that were less proficient at a particular skill, thereby fostering cooperative learning and social competence. Forms of collaborative learning, based on language proficiency, have thus proven to contribute to language acquisition.

In the particular case of narration, didactic choices were also important in terms of providing students with a varied picture of the genre. Apart from literary narrations, students often engaged in spontaneous oral narrations, which were then used as a springboard for other language tasks. They consequently developed academic proficiency in this genre.

It can thus be concluded that dual language programmes can help increase the cultural capital of immigrant families through the official acknowledgement of minority languages within the regular school system. At the end of the tenth or thirteenth grades, these students will attain a bilingual school certificate where both Portuguese and German are valued equally, and which can be used to enhance job opportunities. The Portuguese language is thus in the process of being transformed from a typical heritage language to a symbol of cultural capital.

The particular skills related to academic language will consequently contribute to the formation of what can be termed bilingual academic capital. The "lebensweltlich" language skills lead over time to academic proficiency, which is then transformed into institutionalized cultural capital by being included in the official

German certification system. However, the effects of such an instruction model on embodied cultural capital cannot be deduced from the data presented here.

The internalized habitus, which eventually leads to the reproduction of social inequalities, can thus be changed through the influence of school which, according to Bourdieu (1992) plays a central role in defining legitimate practices and in evaluating performance. This will eventually lead to the creation of a bilingual habitus.

## Suggestions for further research

As has been pointed out several times over the course of this study, the research into the effects of dual language programmes on students' outcomes is by no means complete. Moreover, the discussion surrounding academic language within the German- and Portuguese-speaking contexts is also ongoing. Thus, this study opens up some possibilities for further research.

Firstly, in order to be able to confirm the results of this research, it would be useful if it, or parts of it, were repeated with more students attending the Hamburg bilingual classes. Particularly as regards the determination of academic language features in both languages, the results need to be confirmed, as this may have important implications for didactic choices in both bilingual and submersion classes of this age-group. Furthermore, this research could be expanded to include other linguistic combinations within the programme, or to compare results with other bilingual institutions, using different methodology.

Still regarding the issue of academic language, it would also be relevant to expand this assessment to other age-groups, such as for example the fifteen-year-olds about to leave compulsory education in Germany. This would require the development of an instrument to assess explanatory language competence at different ages. In educational environments, students are increasingly required to give both written and oral explanations in most school subjects and in situations which can influence school achievement. It would thus be of importance to determine the main features of explanatory academic language (in submersion and bilingual classes) for both twelve and fifteen-year old students.

Moreover, as the didactic setting has only been considered here for the students attending the bilingual class, it would be useful to perform classroom observations and interviews with teachers in submersion classes and then conduct a similar analysis. It would then become possible to perform a regression analysis with all the data in order to identify didactic methods that could possibly lead to greater academic language proficiency. It should also be possible to identify further teaching techniques that could be used for the instruction of academic language.

Finally, and as suggested briefly in Chapter 9, the narrative model as formulated by Boueke and Schülein (1995) should be revised in the light of this study's
results. It would be relevant to expand it to include not only other age-groups in German, but also to adapt it to the Portuguese language, and others.

## Suggestions for further implementation of dual language instruction programmes

Although this evaluation of the two bilingual classes does not allow generalizations to be made about two-way bilingual models, the six-year experience nevertheless enables us to summarize a number of factors that can lead to a more successful implementation of such a model:

- The official attitude of the educational institution where such a model takes place should be supportive and encouraging; for example, in the case of the Rudolf Ross School, the German teachers were selected on the basis of their knowledge of Portuguese; a bilingual programme coordinator was recruited and the school director was personally involved in most of the aspects related to the bilingual classes.
- Training courses should be organized for the teachers involved to explore pedagogical issues related to bilingual classrooms.
- When the bilingual classes are organized at the start of the school year, particular attention should be given to the fifty-fifty principle of language division; $50 \%$ of the pupils should already be proficient in the partner language, while the other $50 \%$ may be monolingual German. A balanced gender distribution is also recommended, where possible.
- Complete linguistic equality in all areas is a prerequisite for success with such classes. For instance, if pupils realize that one language is given more importance in evaluation, the model becomes unbalanced and is thus endangered.
- Team-teaching is an appropriate way of achieving this equality; both teachers are present during the bilingual classes and one and/or both of the principles of "one person - one language", "one task - one language" are followed. However, it is important that these principles remain flexible, so that the teachers may also act as learners of the other language, thus becoming an example for the students.
- Consequently, it is necessary that the content of what was said in one language is not directly translated into the other, but rather summarized or paraphrased.
- An explicit contrastive and meta-linguistic approach during both language and content-based bilingual classes is recommended, to be conducted systematically.
- Alongside the achievement of linguistic equality within the classes, it is also important to strengthen the pupils' individual skills by establishing a cooperative (rather than hierarchical) framework. Language, gender, and particular skills should be acknowledged in the formation of small groups of pupils who support each other.


## Glossary

Abitur (Latin abire = go away, go off) is the German designation for the final exams that pupils take at the end of their secondary education, mostly after twelve or thirteen years of schooling. The Zeugnis der allgemeinen Hochschulreife (also referred to as Abiturzeugnis), is a certificate issued after candidates have passed their exams, containing their grades and formally enables them to attend university studies. Thus, it fulfills the functions of a school leaving (high school graduation) certificate and a university entrance exam. Additionally, the importance of the Abitur has grown beyond admission to the university, as it has increasingly become a prerequisite to start an apprenticeship in some professions, such as banking. It is the third most acquired qualification in Germany, after the Realschulabschluss and Hauptschulabschluss.

Ausbildung is an apprenticeship (usually of three years) for non-academic manual jobs related to a specific trade or occupation. It is sometimes referred to as technical education, as the learner directly acquires specific skills and techniques.

Aussiedler used to be the designation given to citizens of German origin that returned to Germany under the Bundesvertriebenengesetz, which regulates issues related to exiles and refugees. Since 1993 they have been called Spätaussiedler (see below).

Ganztagsschule aims to occupy pupils for most of the day in both primary and post-primary levels, contrasting with the Halbtagsschule (see below). It is a form of schooling that is on the increase in the context of the debate and policies regarding equal opportunities.

Gastarbeiter (literally "guest worker") refers to people who moved to Germany mainly in the 1960s and 70s to work, as part of a formal guest worker programme (Gastarbeiterprogramm). Due to a labour shortage during the so-called "Wirtschaftswunder" ("economic miracle") of the 1950s and 1960s, the German government signed bilateral recruitment agreements with Italy (1955), Greece (1960), Turkey (1961), Portugal (1964) and Yugoslavia (1968). These agreements regulated the recruitment of guest workers for low-skilled jobs in the industrial sector.

Gesamtschule (comprehensive school) is a secondary school for children from the age of 11 to at least 16 that does not select children on the basis of academic achievement or aptitude. It is a form of school which children can attend after elementary school at least up to the ninth or tenth grade. In several federal states, it has become an alternative to the traditional tripartite educational system (of "Hauptschule", "Realschule", "Gymnasium"). The essential difference to the usual educational system consists in the fact that, at the Gesamtschule, differentiation is established internally within the pupils in one class and within the school, but not through different school types. After the tenth grade, pupils have the option of con-
tinuing with a Gymnasium upper stage or of leaving to follow different educational or professional paths. Socially and politically, the concept of the Gesamtschule (which mostly also occupies pupils for the whole day) attempts to counter social class differentiation by promoting equality of opportunity.
Gymnasium (grammar school) provides a more academic-oriented education, leading to an Abitur (see above) certificate. It is comparable to US college preparatory high schools. Pupils can study subjects like German, English, mathematics, physics, chemistry, geography, biology, arts, music, sport, religion, history and social. They are also required to study at least two foreign languages. Although the usual combination is English and French, many schools offer combinations of English (or in some cases Latin) with another language, most often Spanish, Ancient Greek or Russian.

Halbtagsschule is both a primary and post-primary school form that occupies pupils for half the day from 8 am to 1 pm , and it is the most frequent type of school in Germany. With its half-day schools, Germany is an exception amongst the industrialized countries, where children mostly attend school morning and afternoon (e.g. the Scandinavian countries, Great Britain, France, Canada, the USA and New Zealand).

Hauptschule is a secondary school, which starts after four years of elementary education. Any student who has attended a German primary school can go to a Hauptschule afterwards, whereas students who want to attend a Realschule (see below) or a Gymnasium (see above) need to have good marks in order to do so. The students spend five-six years at the Hauptschule, from the fifth to ninth or tenth grades, finishing at about age 15-16. The main aim of the Hauptschule is to prepare students for life and focus on practical matters, in contrast to the Gymnasium which concentrates on more academic subjects and prepares students for university. However, Hauptschule students have come to be increasingly stigmatized in Germany in recent years, as public opinion tends to view these pupils as coming from the lower strata of society.

Realschule is a type of secondary school that is moderately academic. Pupils start at the age of 11 or 12 and typically finish school at 16 , when they are expected to start an apprenticeship or move to a Gymnasium.

Ruhrgebiet (literally "the Ruhr area") refers to an urban district in North RhineWestphalia, consisting of a number of large formerly industrial cities bordered by the rivers Ruhr to the south, Rhine to the west, and Lippe to the north. It is a highly industrialized area and has thus been a frequent destination of immigrants.

Sachunterricht is a comprehensive and demanding "subject" taught in primary and special schools that offers a broad introduction to social studies and sciences. The purpose of these lessons is to help pupils construct a picture of the world by
methodically exploring their physical and social environment. It also prepares learners for more diversified classes during later school years. Five perspectives (social/cultural, spatial, historical, scientific and technical) form the framework of this subject.

Schulbehörde (School Administration Board) is the institution responsible for school issues at federal state level.

Sonderschule (special school) is for students with special needs, such as those with learning difficulties or physical disabilities. These schools are specially designed, staffed and resourced to respond to the specific requirements of such children.

Spätaussiedler is a term that has been in official use since $1^{\text {st }}$ January 1993 to replace the older term, Aussiedler (see above). It refers to people of German origin whose families lived for generations in the Middle East, Eastern Europe, Southwest Europe and Asia, and who have moved to Germany within the scope of an admission procedure.

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[^0]:    1 Source: Délégation Générale à la Langue Française et aux Langues de France (DGLFLF) / French Embassy, Berlin (available at: http://utf8.ut.funpic.de/timeline.html).
    2 Programme for International Student Assessment.
    3 Progress in International Reading Literacy Study / Internationale Grundschul-Lese-Untersuchung.

[^1]:    4 Article available at: http://www.radio1812.net/en/themes/media_and_migration_reynald_blion.
    5 Held at the European Commission on $20^{\text {th }}$ October 2009.

[^2]:    6 As this chapter deals with the problem of bilingualism only superficially, for further reading see Grosjean, 1982; Romaine, 1995; Baker, 1996; Hamers and Blanc, 2000; Wei, 2005; Bhatia and Ritchie, 2006, among others.

[^3]:    7 The original quotations will henceforth feature as footnotes: "Wir leben uns schon in unserer Muttersprache immer in mehrere Sprachen hinein, immer mehr verstehend als verwendend, immer da und dort unvollständig und unvollkommen."

[^4]:    8 "Aus diesen Bemerkungen folgt, dass der Spracherwerb nach dem Kindesalter, für das hier 10 Jahre als ungefähre Grenze angesetzt wurde, deutliche Unterschiede im Vergleich zum L1 Erwerb aufweisen wird. Ein weiterer wichtiger Alterzeitraum (...) ist demnach die Zeit um den 5. Geburtstag."
    9 "Ohne Zweifel spielt das Alter beim Zweitspracherwerb eine Rolle, allerdings nicht in der Weise, dass die Sprachlernfähigkeit mit zunehmendem Alter generell abnähme, sondern so, dass auf den verschiedenen Stufen jeweils alters- und situationsgerechte Sprachlernfähigkeiten zur Geltung kommen."

[^5]:    10 According to Hyatt and Simons, "Cultural codes are defined as symbols and systems of meaning that are relevant to members of a particular culture (or sub-culture). These codes can be utilized to facilitate communication within the 'inside group' and also to obscure the meaning to 'outside groups'"(1999: 23).

[^6]:    11 "Transnationale 'hybride' Identitäten können als mehrörtige Selbstverortungen verstanden werden, die sich nicht als stabile Identitäten darstellen, weil sie nicht auf geschlossene Kulturen als Deutungsangebote rekurrieren; sie bleiben verhandelbar."

[^7]:    12 "Es gibt keine allgemeingültige Definition in der wissenschaftlichen Literatur, da es Zweisprachigkeit als einheitliches Phänomen nicht gibt ... Das einzige, was alle Definitionen gemeinsam haben ist, dass sie einen Zustand beschreiben, in dem mehr als eine Sprache auftritt."

[^8]:    14 "(...) beruhten auf Fehlschlüssen, die aus der mangelhaften Berücksichtigung von Sozialschichtunterschieden beim Vergleich mit Einsprachigen herzuleiten sind."

[^9]:    15 "Die Zwei- oder Mehrsprachigkeit von Immigrantenkindern wird hierzulande - immer noch oder immer wieder - problemorientiert betrachtet als eine Situation, die Risiken und Gefahren für die Entwicklung dieser Kinder in sich birgt."
    16 "Die Mehrheit in unserer Befragung sieht Zweisprachigkeit als Chance, sich in verschiedenen Kulturen zurechtzufinden, und 82 Prozent der interviewten Fachkräfte glauben, daß Kinder ohne weiteres zwei Sprachen lernen können, dass sie damit nicht überfordert werden ... Fragt man konkreter nach Möglichkeiten und Schwierigkeiten bei der Umsetzung von pädagogischen Zielen in der eigenen Gruppe, bekommt man den Eindruck, daß die Zielvorstellung, 'bilingual-bikulturelle Erziehung' für die eigene Kindergruppe und für die pädagogische Arbeit kaum eine Rolle spielt. Die Blickrichtung von Fachkräften verändert sich, sobald es konkret um Migrantenkinder in der eigenen Gruppe geht. Im Alltag ist die Sorge um die geringen Deutschkenntnisse dieser Kinder so gegen-

[^10]:    19 "Seitdem sich die Bundesrepublik als Einwanderungsland zu verstehen beginnt, wird (...) darauf verwiesen, dass Migration keineswegs ein neues Phänomen sei, sondern, dass 'in Geschichte und Gegenwart (...) Menschen fremder Herkunft auch in Deutschland die kulturelle Entwicklung beeinflusst haben'."
    20 Citizens with a foreign passport, as opposed to migrants, who may have German nationality.

[^11]:    21 Until 2003 known as Yugoslavia.
    22 "Die Zahl der Kinder, in deren Leben höchstwahrscheinlich eine andere Sprache als Deutsch eine Rolle spielt, ist mithin beträchtlich höher als die der Kinder mit nicht deutschem Pass."

[^12]:    23 "Die neue Qualität von Wanderungsbewegungen wird bei der Konzeption transnationaler Migration vor allem an der Bedeutung andauernder Mobilität festgemacht; Transmigrantinnen und -migranten gestalten ihr Leben 'dauerhaft plurilokal'."

[^13]:    25 "Wenn man gleiche Teilnahmechancen am Leben der Aufnahme Gesellschaft als das Herzstück der Integration ansieht (...), dann stehen gleiche Bildungschancen im Zentrum der Integrationsprozesse. Bildung ist die zentrale Ressource für die Teilnahme am ökonomischen, gesellschaftlichen, politischen und kulturellen Leben."

[^14]:    30 "Bildung" means education and "Benachteiligung" can be translated as disadvantage.
    31 "Mehr Bildungschancen, aber wenig Chancengleichheit."
    32 "Schon in der Grundschule nehmen die Lehrenden über die feinen Sensorien des Habitus unfehlbar wahr, wenn Kinder beim Sprechen, Lesen, Schreiben, Koordinieren usw. verschiedenen Klassenkulturen des kultivierten und des gewöhnlichen Geschmacks entsprechen, und sie machen auch, nicht erst

[^15]:    bei ihren Empfehlungen für die Weichenstellung zu den weiterführenden Schulen, Prognosen für den weiteren Bildungsweg, die die Mitgift und Hilfe des 'Elternhauses' mit auf die Waagschale legen."
    33 "Die Fragestellung, dass zwischen den wissenschaftlich ermittelten Kompetenzniveaus und den Übergangsempfehlungen der Grundschulen sowie der tatsächlichen Aufteilung nach Schularten wenig Zusammenhang besteht, rückt die Aufteilung nach Schulformen in ein fragwürdiges Licht. Eine große Überlappung der Leistungen mit einer Streuung über mehrere Kompetenzstufen wird sowohl in der international vergleichenden PISA-Studie wie in IGLU konstatiert. (...) Das bedeutet, dass die Auslese in unserem Bildungssystem keineswegs so leistungsgerecht und rational ist, wie allgemein geglaubt und von den Bildungspolitikern suggeriert wird."

[^16]:    34 Literally translated the underlayer, the lowest level.
    35 "Die zweite Generation ist in Deutschland beruflich besser gestellt als die erste (...), eine gleichmäßige Verteilung über alle Ebenen des Arbeitsmarktes ist jedoch nicht gegeben."

[^17]:    36 "Ganz allgemein geben offenbar die familiäre Sozialisation und das familiäre Unterstützungspotential bei solchen Entscheidungen den Ausschlag; was unter anderem erklärt, warum Kinder 'einfacher Leute' für eine Gymnasialempfehlung im Gegensatz zu Akademikerkindern überdurchschnittliche Leistungen nachweisen müssen."
    37 "Die selektive Wirkung des deutschen Bildungssystems wird im Vergleich zu anderen Ländern noch dadurch verstärkt, dass die Halbtagsschule die Schüler/innen aus bildungsfernen Milieus am Nachmittag sich selbst überlässt, während ihre Altersgenoss(inn)en von ihren Mittelschichteltern in jeder Hinsicht für eine erfolgreiche Laufbahn gecoacht werden."

[^18]:    38 "Maßgebend für den Bildungserfolg ist (...) der Erwerb der (schriftnahen) Standardsprache bzw. der im Unterricht zunehmend verwendeten Fachsprache."
    39 "Die deutsche Schule versäumt es offenbar stärker als andere Schulsysteme, auch jene spezifischen sprachlichen Kompetenzen zu vermitteln, die die conditio sine qua non für den Bildungserfolg sind. Es geht um die Vermittlung des Deutschen - nicht als Sprache des Lebens oder der alltäglichen Unterhaltung sondern als Sprache der Schule."

[^19]:    41 In an interview with Stefan Keller and Verena Mühlberger for the WochenZeitung, $11^{\text {th }}$ May 2000 (cf. http://www.woz.ch/).

[^20]:    42 "Der 'monolinguale Habitus' wirke sich innerhalb der Nationalgesellschaft auf den 'Marktwert' sprachlichen Vermögens aus - und zwar im Falle lebensweltlich mehrsprachiger Praxis negativ."
    43 "Es macht einen 'sozial relevanten Unterschied', ob eine Sprache als 'Migrantensprache' einerseits, oder als 'Fremdsprache' oder 'Nationalsprache' eines Staates anderseits verhandelt wird. Die Jugendlichen erwarten und erfahren am ehesten eine Aufwertung ihrer sprachlichen Kompetenzen, wenn sie Portugiesisch als Nationalsprache Portugals oder Brasiliens anwenden können (vor allem im internationalen Handel), oder wenn sie sich mit 'Fremdsprachen' beschäftigen (...)."

[^21]:    45 See http://www.coe.int/t/dg4/linguistic/Schoollang_en.asp for more information.

[^22]:    46 "Die Schriftsprache als Anforderung der Schule sehe ich als zentrale Ursache der verdeckten Sprachschwierigkeiten an."

[^23]:    47 "(...) [S]pezielle Anforderungen an die fach- bzw. inhaltsbezogene Literalität (...) (sprich den Umgang mit der Schriftsprache: CALP im Gegensatz zu BICS)."
    48 "(...) [D]ie strukturellen Unterschiede von Mündlichkeit und Schriftlichkeit als Modalitäten unterrichtlichen Lernens (bes. BICS vs. CALP)."
    49 "Das Deutsch, das die Kinder in der Schule verstehen und gebrauchen lernen müssen, hat die eigenen Gesetzmäßigkeiten einer formalisierten Fachsprache. Schulische Kommunikation hat auch dann, wenn sie sich mündlich vollzieht, tendenziell die konzeptionellen Merkmale der Schriftlichkeit."
    50 "Die Sprache der Schule entfernt sich im Laufe der Zeit immer weiter von den Gesetzmäßigkeiten der alltäglichen Sprache in Richtung zunehmende Abstraktion."

[^24]:    51 Monolingual at the time of entrance in the school.

[^25]:    52 "Damit scheint die Bedeutung der schulischen Bildungssprache für die Leistungsentwicklung von Kindern bestätigt. Die sprachliche Bildung müsste sich in der Zukunft stärker auf die Aneignung dieser speziellen Variante der Sprache richten."

[^26]:    53 "Analogien bestehen zur Fachsprachenforschung, nach der für das Deutsche z.B. erhöhter Passivgebrauch zur Entpersönlichung der Aussage oder die Aufblähung der Nominalphrase zur Informationsverdichtung als Merkmale bekannt sind, die fachliche Rede von der alltäglichen mündlichen unterscheiden."
    54 The term is an appropriation of the speech act theory, as Austin and Searle defined it, but not in the sense of real life interactions, such as offering an apology, greeting, request, etc., but rather in a literary context, including literary acts such as description, narration, explanation, etc.

[^27]:    55 "Ao nos referirmos a como o aumento de temperatura afeta a dissolução de sal de cozinha em água no nosso cotidiano, normalmente falamos: quando colocamos sal em água e aquecemos, conseguimos dissolver uma maior quantidade do que em água fria. Na linguagem científica, expressaríamos esse mesmo fato de uma forma diferente: o aumento de temperatura provoca um aumento da solubilidade do sal. Note-se que, na primeira frase, o agente está presente, os verbos designam ações efetuadas por esse agente, e os fatos são apresentados numa ordem seqüencial que garante a linearidade do discurso. Já na segunda frase, o agente desapareceu em conseqüência da nominalização dos processos. Dessa forma, as ações antes designadas por verbos estão embutidas nos grupos nominais (aumento de temperatura e aumento da solubilidade do sal). O verbo (provoca) não mais indica uma ação mas uma relação entre os dois processos nominalizados."
    56 "O uso de conjunções como elementos de ligação causal aproxima o texto dos alunos da linguagem científica. O uso de frase dos tipos Já que ... então ... ou ... pois ... (então) ... revela uma relação causal entre o que já é conhecido (a frase que se segue ao já que ou ao pois) e a nova informação (a frase que se segue ao então), característica da construção do discurso científico, segundo Halliday (1993)."

[^28]:    57 http://www.rudolf-ross-gesamtschule.de/
    58 Other names given to these programmes are: bilingual immersion, two-way bilingual immersion, two-way immersion, two-way bilingual and developmental bilingual education.

[^29]:    59 The original text dates from 1997 and is entitled "School effectiveness for language minority students". The current reference is a summary of the main results published online by the National Clearinghouse for English Language Acquisition (NCELA) at www.ncela.gwu.edu.

[^30]:    61 "Wir können also mit großer Sicherheit sagen, dass in allen drei Nationalitäten bessere Muttersprachenkenntnisse mit besseren Deutschkenntnissen einhergehen, was eindeutig für die Gültigkeit der Interdependenzhypothese spricht (...). Es ergibt sich dann für alle untersuchten Nationalitäten, dass in über $75 \%$ der Fälle die Sprachkenntnisse im Deutschen und in der Muttersprache korrelieren."

[^31]:    62 "Ich verstehe BU [bilingualer Unterricht] als Sachfachunterricht, der aus Sicht der Lernenden in einer Fremdsprache geführt wird."
    63 "Eine sprachliche Überlegenheit bilingual unterrichteter Schülerinnen und Schüler gegenüber ihren nichtbilingual unterrichteten Peers wird auch in der Evaluation niedersächsischer Schulen gefunden. (...) Die größten Zugewinne ergäben sich im Bereich des Leseverstehens, wo die bilingualen Schülerinnen und Schüler nach einem Jahr um im Mittel 20 Prozentpunkte höhere Testwerte erzielen würden. (...) Auch in der globalen Sprachkompetenz seien die Bilingualen den Nichtbilingualen überlegen."
    64 "(...) [F]indet sich in allen Kompetenzen im Englischen ein substanzieller Vorsprung dieser Gruppe, der von 46 Punkten im Schreiben bis zu 74 Punkten im Hörverstehen reicht. (..) Vergegenwärtigt man sich, dass die Klassen zumeist über drei Jahre (7 bis 9) hinweg bilingual unterrichtet worden waren, kann davon ausgegangen werden, dass ähnlich große Zuwächse in jedem Jahr auftreten und sich kumulieren."

[^32]:    65 "Dem Submersionsmodell entspricht in den Ländern der Bundesrepublik Deutschland die umstandslose Integration in Regelklassen, die den häufigsten Fall darstellt."
    66 "Die Schülerinnen und Schüler erwerben Kompetenzen in den Bereichen Produktion (Schreiben und Sprechen), Reproduktion (Hören und Lesen), Umgang mit Texten, Reflexion über Sprache und Mediation. Durch die Förderung von Sprachbewusstheit und Sprachreflexion im Unterricht erwerben die Schülerinnen und Schüler eine metasprachliche Kompetenz, die sie befähigt, sprachliche Phänomene in ihrer Herkunftssprache im Vergleich zur Deutschen Sprache zu erfassen."

[^33]:    67 Site of the European Commission available at http://e.europa.eu/education/policies

[^34]:    langsam nach, da sie in zunehmendem $\mathrm{Ma} \beta$ in der eigenen Industrie unterkommen können. Es folgen die Spanier mit 15,5 Prozent und die Griechen mit 15,4 Prozent."
    71 "A partir de 1965 sucedeu um facto muito curioso: esse ano poderá considerar-se mesmo como o primeiro ano que seguiram para a Alemanha indivíduos 'com serviço militar cumprido no Ultramar'. Aliás, os serviços de emigração tiveram mesmo instruções para apressar os processos, em especial daqueles que, tendo combatido no Ultramar, pretendiam agora emigrar para a Alemanha (para a França ou o Luxemburgo)."
    72 "Relativ rasch nach den ersten Anwerbemaßnahmen, die sich auf - männliche oder weibliche alleinstehende Arbeitskräfte richteten, entwickelten sich zunächst Bewegungen unter den Migranten selbst, bald auch Rechts- und administrative Vorkehrungen seitens der Zuzugsstaaten, die zum Familiennachzug führten bzw. diesen legitimierten."

[^35]:    73 Rate of activity can be defined as the ratio between the number of migrants who are working and the total number of migrants.

[^36]:    74 "Die Berichte der Ausländerbeauftragten weisen hier - ebenso wie vergleichbare Studien aus den europäischen Nachbarländern und den klassischen Einwanderungsländern Kanada und USA außerdem deutliche Unterschiede zwischen den einzelnen Zuwanderungsgruppen aus; als erfolgreichste Gruppen werden hier Schüler aus Familien spanischer, griechischer oder portugiesischer Herkunft genannt, während Schüler aus Familien türkischer Herkunft und italienischer Herkunft deutlich niedrigere Anteile an höhere Bildungsabschlüssen (Mittlere Reife, Abitur) und niedrigere Ausbildungsquoten aufweisen als Schüler aus den zuvor genanten Gruppen und Schüler aus der deutschen Mehrheitsgesellschaft."

[^37]:    75 "Embora a formação professional dos jovens portugueses seja inferior à dos alemães, a verdade é que, quando comparados com os outros imigrantes - excepto os espanhóis -, os jovens portugueses têm qualificação profissional superior."
    76 "(...) [M]ais de $60 \%$ dos aprendizes portugueses trabalham em profissões onde as exigências de qualificação são altas e as oportunidades no mercado do trabalho são boas."

[^38]:    77 "Der gesellschaftliche Wert einer Sprache hängt eng mit dem sozialen Status ihrer Sprecherinnen und Sprecher zusammen, und es zeichnet sich ab, dass Portugiesisch als Sprache von EU-Bürgerinnen und -bürgern ein höhes Prestige besitzt als vormals als Sprache von Arbeitsmigrantinnen und -migranten."

[^39]:    78 Available at: http://europa.eu.int/comm/public_opinion/archives/ebs/ebs_237.en.pdf
    79 "Das Portugiesische gehört trotz des europäischen Zusammenschlusses und der portugiesischen Mitgliedschaft in der Europäischen Union weiterhin zu den in Deutschland und den anderen deutschsprachigen Ländern unbekannten Sprachen."
    80 See previous chapter for further discussion on this issue.

[^40]:    81 "Im Jahr 2000 besuchten dem Erziehungsattaché des portugiesischen Konsulats zufolge 750 von insgesamt ca. 1000 in Hamburg lebenden Kindern und Jugendlichen portugiesischer Herkunft den nachmittäglichen (staatlichen und katholischen) Portugiesischunterricht."
    82 "Etwa 90\% der Kinder können nach eigener Einschätzung Portugiesisch verstehen und sprechen. Kompetenzen im Lesen und Schreiben werden mit zunehmendem Alter häufiger und insgesamt von einer Mehrheit der Kinder angegeben."

[^41]:    83 "Die Abschlüsse gelten als Nachweis für portugiesische Sprachkenntnisse und können bei einem Umzug nach Portugal für den Schulwechsel oder den Arbeitseintritt in einer portugiesischen Firma nützlich sein."
    84 "Segundo o Instituto Federal de Estatística a 31.12.2001 residiam 132625 portuguesas e portugueses neste país, dos quais 60187 , isto é, $45 \%$, há mais de 15 anos e $19 \%$ há mais de 25 anos. $42 \%$ residem há menos de 10 anos, dos quais só $39 \%$ são mulheres. Por que razão são estes dados relevantes? Porque são fundamentais para definir uma política de língua em bases sólidas e que corresponda aos interesses da comunidade. O ensino da Língua Portuguesa tem de levar em conta esta realidade e preparar os jovens, não para um 'regresso' inexistente, mas para uma melhor integração na sociedade alemã."

[^42]:    85
    "Wie im allgemeinbildenden Schulwesen kann auch an den Hochschulen nicht von einer flächendeckenden Verbreitung des Portugiesischen gesprochen werden, obwohl die Anzahl der Universitäten, an denen das Portugiesische angeboten wird, in den letzten Jahren zugenommen hat."
    86 http://www1.uni-hamburg.de/clpic/
    $87 \mathrm{http}: / / i m i g r a n t e s . n o . s a p o . p t / p a g e 2 . h t m l$.
    88 http://www.oi.acime.gov.pt/.
    89 http://www.oi.acime.gov.pt/docs/rm/estatisticas\%20imigracao\%20portugal.pdf.

[^43]:    90 Cf. In Público 18.12.2003 the article intitled "Doze conselhos sobre imigração", by Elena Liachtchenko.

[^44]:    91 "Verificámos, numa visita à cidade de Hamburgo, a progressiva expansão deste [modelo de ensino bilingue] sistema. (...) Passar um dia na escola com 'turmas mistas' para meninos de origem lusófona, ver crianças alemãs arranhando o português, impressiona. Mas isso é secundário. O principal é que este método impressiona as crianças lusófonas. Estimula-lhes a auto-estima. Elas vêem a sua língua caseira ser falada pelo menino alemão. A sua língua de origem é, afinal, 'como a deles,' tão importante como a 'deles.' Tão importante que até 'eles' a falam ..."
    92 "Portugal ist eines der wenigen Länder, die sich intensiv um die Integration ihrer Auswanderer im Ausland bemüht haben. Heute wird es nötig, sich um die Integration der Zuwanderer im eigenen Land zu bemühen."

[^45]:    93 In some cases, the grades given by the heritage language teachers are included by the schools in the German final certificates but they do not influence them in any way.

[^46]:    94 "Die verdeckten Sprachschwierigkeiten [der Schule] haben also etwas mit dem Schreiben und der Schriftlichkeit zu tun."
    95 "Für Kinder mit geringen Deutschkenntnissen resultieren aus der doppelten Abstraktion von Laut und Gesprächspartner einige Probleme. Die Schriftzeichen als Träger der sprachlichen Information werden entweder verstanden oder nicht. Begleitende Information zur Verdeutlichung der eigentlichen, sprachlich vermittelten, Botschaft werden nicht gesendet. Darüber hinaus gibt es keine Möglichkeit, eigenes sprachliches Unvermögen mit Gestik, Mimik oder Prosodik zu lindern oder zu überbrücken."

[^47]:    96 This subject is the continuation of the "Sachunterricht" from primary school and deals mainly with historical, geographical and political issues. At the same time, it offers the possibility to discuss current themes, which influence everyday life, and transfer them to a school context where discussions obey a more academic linguistic pattern. Students thus reflected upon the tsunami in Asia, the elections in Germany and Portugal, the kidnapping of German reporters by the FARC in Colombia or the big football championships.
    97 "Die Lehrperson geht irrtümlich von einer zu hohen Sprachkompetenz aus und führt den ausbleibenden schulischen Erfolg auf mangelnde Intelligenz, geringe Lernbereitschaft oder sogar auf eine Lernbehinderung zurück."

[^48]:    99 "Da Sprachgebrauch immer auch vom Kontext abhängig ist, kann man mit guten Gründen fordern, dass er da - und nur da - studiert wird, wo er sich tatsächlich ereignet, d. h. innerhalb 'natürlicher' Situationen. Ein solcher im Rahmen interaktionistischer und soziolinguistischer Untersuchungen denn auch favorisierter Zugang ist für die Untersuchung der dem Sprachgebrauch 'zugrunde liegenden' Kompetenzen aber weniger geeignet als ein experimentelles Setting, wie es von uns (...) gewählt worden ist: Die 'Natürlichkeit' der Erzählsituation und die Vergleichbarkeit der dabei gewonnen Erzähltexte schließen sich weitgehend aus."

[^49]:    100 About six months.

[^50]:    101 Destined to deal with organizational matters or formal issues like presentation of materials, homework, vocabulary learning, etc.

[^51]:    102 Languages of tuition other than German.

[^52]:    103 Colloquial style $\alpha=.83$, academic style $\alpha=.71$, elaborated style $\alpha=.99$.

[^53]:    104 "(...) [E]s fand ein integriertes Sprach- und Sachlernen statt, das aufgabenorientiert war und in dem eine authentische Sprachpraxis gepflegt wurde. Die Lehrkräfte intendierten, rezeptive und produktive Fähigkeiten im Mündlichen und Schriftlichen in beiden Sprachen zu fördern."

[^54]:    105 "Ermutigt durch die Empfehlung der wissenschaftlichen Begleitung, die Partnersprachen auch in der Interaktion der Lehrerinnen untereinander zu benutzen und den Kindern so Beobachtungen über Sprachlernstrategien, Beispiele für Lernersprachenphänomene und Sprachwechsel zu geben, erprobten einige Lehrerteams bei entsprechend organisiertem Unterricht ('Stationenlernen', 'Werkstatt') gezielt, bilingual zu agieren."

[^55]:    106 In about $30 \%$ of the cases, both parents were present during the interview.
    107 Project supervised by Cristina Flores and Erwin Koller from the University of Minho in Braga in cooperation with Hans-Joachim Roth and Joana da Silveira Duarte.

[^56]:    108 Some of the parents were bilingual themselves.
    109 In 2 of these cases, there were other languages in the family but they were never used in communication with the child.

[^57]:    110 At the time of the interview, the child had been in Germany for one year.

[^58]:    111 PDF File available at: http://www.statistics.gov.lk/samplesurvey/occ_code.pdf

[^59]:    112 ISEI 29 on a scale from 16 to 90 - at the end of the fourth grade it was 45 , thus the general level is even lower.

[^60]:    113 "Gegeben ist eine Reihe von drei oder vier Figuren, die sich nach bestimmten Merkmalen klassifizieren lassen (Form, Schraffur, Lage ...). Aus fünf weiteren Figuren ist diejenige herauszufinden, die zu der Klasse der vorgegebenen Figuren gehört."
    114 "Wortanalogien - Gegeben sind ein Wortpaar, dessen Teile in einem bestimmten Verhältnis zueinander stehen. Zu einem dritten Wort ist aus fünf Antwortalternativen diejenige herauszufinden, die mit dem dritten Wort in gleicher Relation (Analogie) steht wie die beiden ersten (p.10)."
    115 "Analog zu V3. Statt um Wortpaare geht es in diesem Test um Figurenpaare."
    116 "Ein 'Blatt Papier' wird gedanklich mehrmals gefaltet; anschließend werden (ebenfalls virtuell) Löcher hineingesetzt. Es muss entschieden werden, welches von fünf vorgegebenen Mustern sich nach dem Auffalten ergibt."

[^61]:    117 "Das Unerwartete bildet das Organisationszentrum für die Geschichte und damit für die Struktur dessen, was erzählt wird, was im Erzählen umgesetzt wird."

[^62]:    118 "(...) [E]her eine szenisch vorführende, weniger eine sachlich darstellende Repräsentation vergangener Handlungen/Ereignissen."
    119 "(...) [S]prachliche Vergegenwärtigung einer zurückliegenden singulären Erfahrung, die dem Hören/den Hören die Teilnahme an fremden Erleben ermöglicht."

[^63]:    120 "Beim Beschreiben macht der Hörer 'einen Gang durch den Vorstellungsraum', beim Berichten macht er eine 'Konzeptualisierung' und beim Erzählen partizipiert er an einer fiktiven Reproduktion des Sachverhalts."
    121 "[G]ewisse Minimalbedingungen von Ungewöhnlichkeit."

[^64]:    122 "(...) [D]er die Einstellung des Erzählers gegenüber seiner Erzählung dadurch anzeigt, dass die relative Wichtigkeit bestimmter narrativer Einheiten mit Bezug auf andere hervorgehoben wird."
    123 "Punkt maximaler Komplikation."

[^65]:    124 For the information on these authors' model I would like to thank my colleague researcher Christoph Gantefort from the University of Cologne, who also helped me attain a deeper insight on many other questions related to narration.

[^66]:    125 "[S]ondern z. B. Gehörtes oder medial Vermitteltes wiedergeben."
    126 "Sachverhalte oder Handlungen benennt, die graphisch auf dem vorgelegten Bild dargestellt sind."
    127 "semantischen Einheiten, deren Inhalte über die Verbalisierung der graphischen Bildelemente hinausgehen, d. h. 'neue' Informationen liefern und Relationen zwischen einzelnen Sachverhalten, Handlungen und Bildern herstellen."

[^67]:    128 The following section offers a more detailed list of the linguistic phenomena identified by Boueke and Schülein (1995).

[^68]:    130 "(...) als ein allmählicher Aufbau dieses Schemas 'im Kopf’ der Kinder."
    131 "(...) muss als ein im Wesentlichen selbstgesteuerter Prozess interpretiert werden."
    132 "Erfahrung der 'Unzulänglichkeit' der jeweils erreichten Ebene - abgesehen von der 'höchsten'."

[^69]:    134 "(...) das Sprechen und Verstehen entwickele sich [...] von allein und brauche folglich keine unterrichtliche Vermittlung."
    135 "(...) eine Art stimmlich realisierte (...) Schriftsprache oder hörbar (...) sprachliches Strukturwissen, sondern (...) Interaktion, die durch die jeweilige Verwendung sprachlicher (sowie stimmlicher und nicht verbaler) Formen einen je spezifischen Sinn herstellt."

[^70]:    136 "Neben der Arbeit von Schwenk (...) sind dies die einzigen Arbeiten, in denen schriftliche Erzählungen von Kindern und Jugendlichen aus Sprachminderheiten die Grundlage für eine ausführliche Analyse bilden."

[^71]:    137 "Während sich im jüngeren Alter die Textkompetenz in beiden Sprachen auf einem ähnlichen Niveau befindet, entwickelt sich diese Kompetenz im Laufe der Zeit zu Gunsten der Zweitsprache." 138 Recorded and transcribed.

[^72]:    139 "Geringe Sprachfähigkeit bewirkt eine geringe narrative Kompetenz."
    140 "Nach einer Verlesung einer Geschichte auf Deutsch konnten die türkische Kinder eine nur unvollständige Wiedergabe liefern; zumeist brachen sie nach einigen Äußerungen ab. Nachdem ihnen jedoch dieselbe Geschichte auf Türkish, also in ihrer Muttersprache, vorgelesen wurde, waren sie in der Lage, eine weitgehend vollständige Wiedergabe in der zweiten Sprache Deutsch zu machen."

[^73]:    141 "Die schriftlichen Texte sind - im Unterschied zu den mündlichen Sprechproben derselben Kinder stärker gestaltete Texte - darin markieren die Schülerinnen und Schüler im zweiten Schuljahr bereits die prinzipielle Unterscheidung von Schriftlichkeit und Mündlichkeit und damit einen Einblick in den Prozesse des Erwerbs von Literalität."
    142 Official language of the Indian state Gujarat, belonging to the family of the Indo-European languages and similar to Hindi.
    143 "O facto de não haver grande variação no desempenho dos alunos é extremamente positivo, mostrando que, independentemente da sua situação linguística, os alunos foram capazes de cumprir a tarefa que lhes tinha sido solicitada, isto é, elaborar um texto narrativo."

[^74]:    144 Due to the complexity of the procedure used, dictations were not collected for the two control groups.

[^75]:    145 "Look at the sequence of pictures and then write the story about it. You must write something about each picture. There is a picture missing where the question mark is. Write what happened, in your opinion."

[^76]:    146 Two students were absent when the German tests were administered and, because of the forthcoming holidays, it was impossible to collect the missing data at a later date.

[^77]:    147 "In einem ersten Schritt wurden zunächst die Wörter gezählt und die Texte in textuelle (satzförmige) Einheiten zerlegt, um davon ausgehend den MLS (mean length of sentence) zu errechnen. Die durchschnittliche Wortmenge pro satzförmiger Einheit ist ein Globalmaß für die Komplexität der Texte."

[^78]:    150 "Die Aufgabenbewältigung ist das grundlegende Maß. Erfasst werden soll, inwieweit das Kind in der Lage ist, die Aufgabe der sprachlichen Wiedergabe der ausgewählten Bildfolge bzw. des ausgewählten Situationsbildes so zu lösen, dass die Bildinhalte 'kommuniziert', d. h. für einen Zuhörer nachvollziehbar werden. Dieses Maß berücksichtigt, dass Sprache in der Regel nicht als Selbstzweck verstanden wird, sondern in Kommunikations- und Handlungskontexte eingebunden ist, und es ist vergleichsweise nahe an pädagogischem Denken."
    151 This picture is covered with a question mark and is thus not shown to the students.

[^79]:    153 "Aufgrund der Voruntersuchungen hat sich gezeigt, dass - im Gegensatz zur Einschätzung des Sprachstands in der gesprochenen Sprache - eine Erhebung der Verben allein nicht ausreicht. Gerade für bildungssprachliches Schreiben und die Einschätzung der Begriffsbildung ist der nominale Wortschatz von hoher Bedeutung. Einen Text von tieferer Differenziertheit zeichnet außerdem die Verwendung spezifizierender Adjektive aus."
    154 "Wants to do."
    155 Periphrasis is a device by which a grammatical concept is expressed by a phrase or standard idiom, instead of being shown by inflection, derivation or the use of non-content words. The pattern of the phrase is called a periphrastic construction.
    156 "Start to laugh."

[^80]:    It turned out that, with the original design of the tool, it was not possible to observe learning progress in all of the evaluated areas - in fact, partly significant regression was actually found - i.e. not all the students' learning progress could be appraised. ${ }^{157}$ (2008: 33)

[^81]:    157 "Es hatte sich herausgestellt, dass mit der ursprünglichen Konzeption des Erhebungsinstruments nicht in allen der ausgewerteten Bereiche Lernfortschritte beobachtet werden konnten - z. T. waren durchaus auch signifikante Rückschritte festzustellen - bzw. konnten nicht alle Lernfortschritte der Schülerinnen und Schüler erfasst werden."

[^82]:    158 "Trotz der geringeren Vollständigkeit in der sprachlichen Darstellung der Bildsequenz haben die Schülerinnen und Schüler die spezifischen Gestaltungsmittel der Textsorte Erzählung in der zweiten Welle häufiger und differenzierter angewendet. Die Aufgabenbewältigung dagegen erweist sich für die vorliegende Stichprobe nur hinsichtlich der Einstiegsdiagnostik als stabiler Indikator. Zusammenfassend kann somit durchaus von einer Steigerung der Textkompetenz gesprochen werden, wenn auch offenbar ein sich motivational auswirkender Gewöhnungseffekt vorliegt."

[^83]:    159 In English it would mean "to let" in constructions such as "let something fall".
    160 Examples will be given below.

[^84]:    163 It would be too laborious to list each of these correlations here; however, examples include: the shaping of the beginning of a texts correlates with the shaping of its end, the use of dialogues correlates with the shaping of the end and with the motivation behind the characters' actions, etc.

[^85]:    164 The test used was repeated measures ANOVA in an attempt to develop a model. The first number between the brackets after the F (Fisher's ANOVA), in this particular case the 12, represents the degree of freedom for the effect of the model and the second, in this example the 23 , is the degree of freedom for the effect of the residuals of the model.

[^86]:    165 Cf. the notion of Textklammer in Roth, 2003.
    166 The macro-structure of a narrative comprises its line of development from the beginning to the end, not being dependent on the way in which events are narrated, but must be reconstructed after reading the text (cf. van Dijk, 1997).

[^87]:    167 "Die Wirkung bilingualer Programme des Unterrichts mit einer expliziten muttersprachlichen Förderung ist trotz einer Vielzahl von Studien und (Meta-) Analysen bisher nicht geklärt, vor allem weil es an methodisch geeigneten Studien mangelt."
    168 "Das Hauptproblem bei allen diesen Bewertungen und die wohl wichtigste Ursache für die Komplikationen und Divergenzen in der Beurteilung der Effektivität der bilingualen Programme scheint jedoch die ausgesprochen schlechte methodische Qualität der allermeisten Untersuchungen zu den Effekten zu sein: keine Kontrollgruppen, keine Vorher-Messungen, keine Randomisierung oder andere Kontrollen von Hintergrundvariablen, verzerrte und zu kleine Stichproben u. a."
    169 "Eine Kombination von Zweitsprachförderung und Unterricht im Medium der Herkunftssprache führt bei im Übrigen gleichen Bedingungen zu deutlich besseren Ergebnissen gegenüber einsprachigen Submersionsprogrammen."

[^88]:    170 "Die Befunde aus PISA 2000 haben gezeigt, wie stark in Deutschland die soziale Herkunft und die Kompetenz von Jugendlichen zusammenhängen. Im internationalen Vergleich gab es damals nur wenige OECD-Staaten, in denen die Kopplung zwischen dem sozioökonomischen Status der Eltern und den gemessenen Kompetenzen so eng war wie in Deutschland."

[^89]:    171 Reuven Bar-On developed the BarOn EQ-i after 17 years of research, and this inventory is the first scientifically developed and validated measure of emotional intelligence (BarOn Emotional Quotient Inventory (EQ-i) 1996). The test covers five areas: intrapersonal, interpersonal, adaptability, stress management and general mood.

[^90]:    172 "So können sich Klassen in ihrem Leistungsniveau stark unterscheiden, während bei ihnen aber ein ähnliches Notenspektrum zu finden ist. Aufgrund der mangelnden Vergleichbarkeit von Schulnoten verliert somit die Bildungsgangempfehlung für die weiterführenden Schulen der Sekundarstufe I erheblich an Validität."

[^91]:    173 Once again, for statistical reasons this one child was included in Group A for the purpose of the data analysis.

[^92]:    175 From a total of 16 or 17 points, depending on the test part.
    176 However, this group is statistically too small to allow general statements. Additionally, the PIRLSIGLU test was not constructed to discern between individual skills but rather to provide group data.
    177 This was due to the problems they had in following the classes and completing the tasks. About half a year later, the teachers mentioned that this initial situation had become more positive.

[^93]:    178 Portuguese and Cape Verdean Creole.

[^94]:    179 About twenty teachers were present in these discussion circles.

[^95]:    Mrs. C. starts working on the vocabulary. The students already know the text, but must still find synonyms in Portuguese as well as the meanings in German. Mrs. C. reads a paragraph and selects the words which should be worked on.
    Maria tries to explain the first word with a paraphrase. Mrs. C. makes clear once more that she wants synonyms and points towards the dictionary.

[^96]:    180 "Schon im ersten Jahr des Schulversuchs hatte sich gezeigt, dass die sprachliche Zusammensetzung der Klassen eine wichtige Rahmenbedingung für die Lernfortschritte der Schülerinnen und Schüler darstellt. Nicht allein das Vorhandensein von Kenntnissen in der Partnersprache und die Zugehörigkeit zu einer der vier Sprachgruppen tragen zu unterschiedlichen Erwerbsverläufen und -ergebnissen bei, sondern ebenso die Konstellationen, die in dieser Hinsicht in einer Klasse vorliegen."

[^97]:    Now the children must read the text about the legend of Rome.
    Larissa reads the first paragraph and receives help from Mr. K. with some words.
    The text contains specific vocabulary. This does not alienate most of the students, but rather arouses their curiosity
    Mr. K. asks a vocabulary question and Larissa explains in detail.
    The text is read by three other students. After every paragraph, questions are asked, mostly by the students and in relation to the vocabulary. When all questions have been cleared up, Mr. K. asks the students to look at the story critically.

[^98]:    181 "Ein Ziel von Bildungseinrichtungen wie den Schulen richtet sich darauf, Kindern und Jugendlichen unabhängig von ihrer sozialen und ethnischen Herkunft gleiche und gerechte Chancen für den Besuch von Bildungseinrichtungen und für die Entwicklung von Kompetenzen zu bieten."

[^99]:    182 Even Derrida himself has not found a suitable definition for the term. When asked "What is deconstruction?" he stated, "I have no simple and formalisable response to this question. All my essays are attempts to have it out with this formidable question" (Derrida, 1985: 4).

