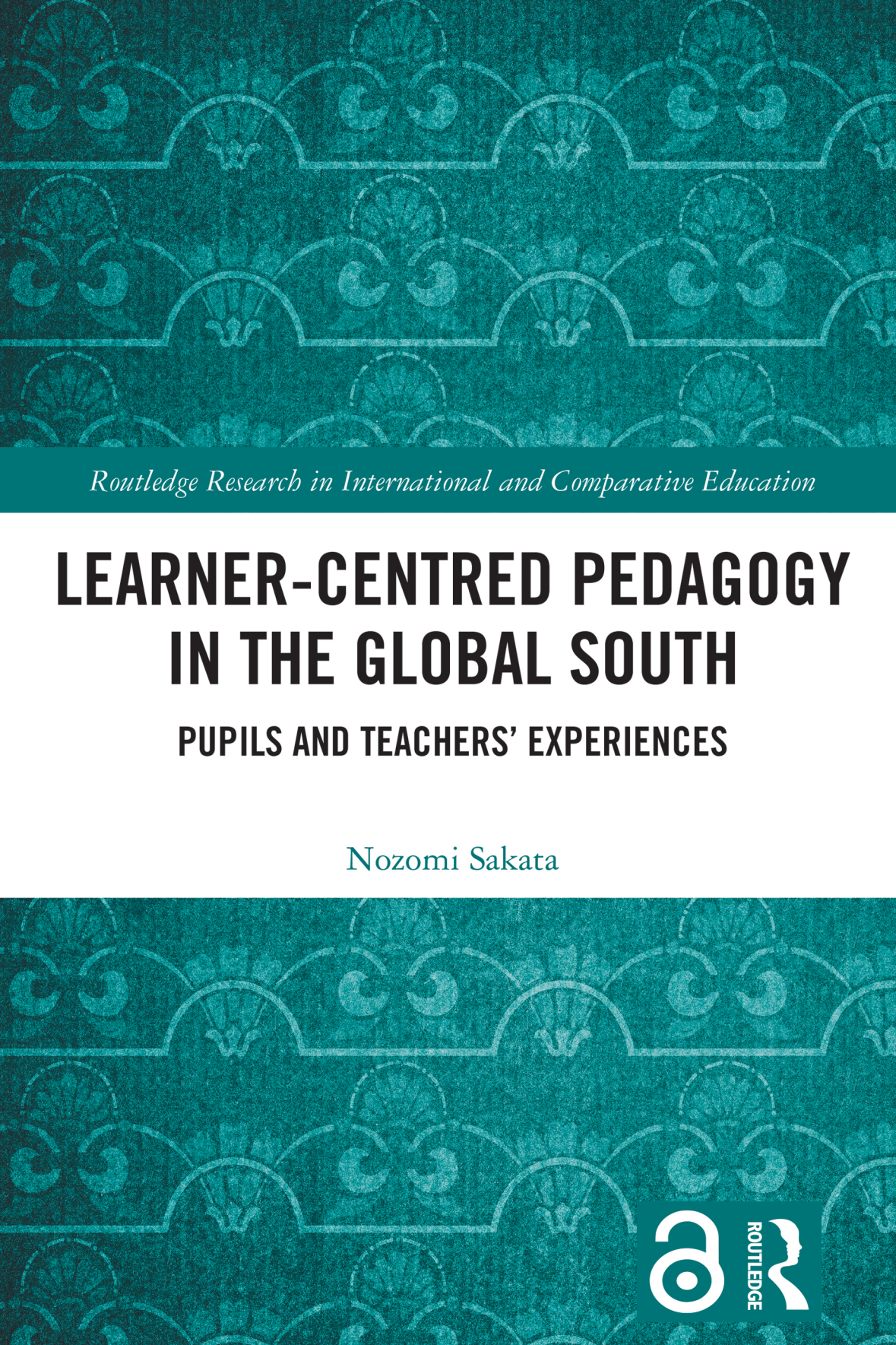
Routledge Research in International and Comparative Education
LEARNER-CENTRED PEDAGOGY IN THE GLOBAL SOUTH
PUPILS AND TEACHERS' EXPERIENCES
Nozomi Sakata
ROUTLEDGE

Learner-Centred Pedagogy in the Global South

Learner-Centred Pedagogy in the Global South: Pupils and Teachers' Experiences shines light on learner-centred pedagogy (LCP), which has gained popularity within global and national governments, albeit resulting in puzzling and inconsequential appropriation.

Nozomi Sakata draws on award-winning research on learner-centred pedagogy conducted in Tanzania that looks to shift the focus from teachers and teaching to students and learning. The recent spread of LCP through global policy discourse meets Tanzania's historical and contemporary (in)compatibility in local schools. The book explores how pupils' perceived classroom experiences are formed through pedagogical elements beyond the classroom. It also enquires into how observable LCP activities and/or pupils' perceptions of classroom practices relate to their academic performance and learning attitudes. The book highlights the multidimensionality of pedagogy and the need to consider multiple viewpoints from both teachers and pupils and to consider the historical and socio-cultural contexts in any pedagogical research.

This book will be of value to researchers and students interested in pedagogy, policy transfer and educational reforms in the global South.

Nozomi Sakata is Assistant Professor at the Center for the Study of International Cooperation in Education in Hiroshima University, Japan. Her research interests include educational policy diffusion and implementation with a focus on pedagogical reform in low- and middle-income countries.

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Learner-Centred Pedagogy in the Global South

Pupils and Teachers' Experiences

Nozomi Sakata

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Abbreviations

ANOVA	Analysis of variance
CCS	Comparative case study
CFS	Child-friendly school
EFA	Education for All
ESR	Education for Self-Reliance
FGD	Focus group discussion
IRF	Initiation, response and feedback
LCP	Learner-centred pedagogy
MDGs	Millennium Development Goals
PIRLS	Progress for International Reading and Literacy Study
PISA	Program for International Student Assessment
Q&A	Questions and answers
SDGs	Sustainable Development Goals
TCP	Teacher-centred pedagogy
TIMSS	Trends in International Mathematics and Science Study
UK	United Kingdom
UNESCO	The United Nations Educational, Scientific and Cultural Organization
UNICEF	The United Nations Children's Fund
US	United States
USSR	Union of Soviet Socialist Republics

1 Introduction

1961 Kambarage became a hero
Without bloodshed, he made December shine
Yes R.I.P. Maria is crying for you
In soul you are with us, but in body you are lost already
You resigned when we still needed you
You didn't want to be in power for long

To a strong rap beat, Roma Mkatoliki (2014), a popular hip-hop singer in Tanzania, begins his song *Tanzania* with these lyrics. The song embraces Tanzania's first post-independence president, Julius Kambarage Nyerere, by comparing him with other politicians who served after him. In Tanzania, hip-hop and rap music are often used to convey political messages, both to promote certain ideas and to criticise the government. Many sing the legacy of Nyerere and his political idea, *ujamaa*, brought into being soon after Tanzania's independence. Translated as 'familyhood', *ujamaa* promoted a socialist ideology comprising the cooperation of villagers, equality and self-reliance during the postcolonial era (Stöger-Eising, 2000). In developing Tanzania socially and economically, Nyerere advocated reviving the traditional African way of living through a bottom-up approach, encouraging citizens to participate in nation building.

Nyerere's social and political spirit remains alive not only in the music scene but also in many aspects of people's daily lives. As an intern at the United Nations Children's Fund (UNICEF) Tanzania country office, and as a volunteer teacher at a nursery school in Dar es Salaam, I stayed in Tanzania for several months before embarking on this study. 'Dala dala', the most widely used public transport, displays posters of Nyerere on windows. Local shops sell his pictures and postcards. Many TV programmes feature him and run commercials using his image. During the 2015 presidential election, while I was conducting fieldwork, two major political parties, Chama Chama Mopinduzi and a union of three independent parties popularly called UKAWA, fought about how to interpret and actualise *ujamaa* policies in modern-day Tanzania. Fouéré (2014) claims that 'Nyerere and Ujamaa are employed as a language and repertoire of ideas, values, images and metaphors to define, mediate, and construct conceptions of morality today and the meaning of Tanzanian-ness' (pp. 17–18).

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Nyerere's political philosophy of *ujamaa* accompanied educational policies espousing transformative pedagogy, as specified in Education for Self-Reliance (ESR) issued in 1967. In the interest of reviving traditional African socialism, ESR established the purposes of education as enhancing the cooperation of villagers, achieving the common good and structuring an egalitarian society (Nyerere, 1967). Nyerere valued the links between the educational curriculum and the local lives of the people. The curriculum also stressed the skills needed in the sector through 'learning by doing', and it intended to foster cooperative attitudes among students. It was agreed that the importance of exams should be downgraded. Democratisation of learning also constituted the major theme in Nyerere's policies, and ESR was meant to produce self-reliant and democratic citizens. Pupils should be entitled to make decisions on, for example, how to spend school money and how to work on the school farm. This was because 'only then can the participants practice – and learn to value – direct democracy' (Nyerere, 1967, p. 398). As such, the *ujamaa* framework and the accompanying ESR are said to have contributed to the dismantling of barriers between schools, as places for elite formation, and society. Nyerere encouraged horizontal engagement between teachers and learners, between learners and knowledge, and between schools and society. Ideas of democratic pupil–teacher relationships, curriculum relevance to local conditions, practical learning and peer collaboration constituted the core of his educational policies (Mbilinyi, 2004).

These aspects of *ujamaa* and ESR closely mirror learner-centred pedagogy (LCP), as currently disseminated throughout Tanzania and other low-income countries. LCP carries eclectic educational ideas, recommending individualised learning, learner independence, equalised learner–teacher relationships, learning through activities and social interactions (Dewey, 1916; Rousseau, 2007; Vygotsky, 1978). Labelled as a traveling policy, LCP has spread across the global South with international donor organisations as the mediator. Empirical research nonetheless has largely indicated challenges and ambiguities which call into question the efficacy of LCP (Schweisfurth, 2011; Tabulawa, 2013). While the Tanzanian education system has embraced some LCP features and has continued to espouse its arguably compatible social and political base with LCP, the country has presented similar results for LCP implementation as other low-income nations (Barrett, 2007; Vavrus, 2009). My personal experience in Tanzania aligns closely with the literature.

During my time as an intern at UNICEF, I conducted a master's dissertation project on LCP implementation in the country. I observed classes and interviewed teachers while I helped evaluate the implementation of UNICEF's child-friendly school (CFS) underpinned by LCP principles. The teachers explained their understanding of the pedagogy as suggested by UNICEF, but their teaching practice did not follow its tenets. When I taught at the nursery school a few years later, teachers there spoke in a commanding tone and shouted at the children sitting in rows and staring at the teachers.

Although the literature consistently suggests the incompatibility and ambiguities which plague LCP implementation in the global South, there are understudied areas which could advance our understandings of the challenges of successfully

using LCP in a low-income context. Despite the similarities between learner-centred ideas and the educational philosophy and policies historically developed in Tanzania, little research conducted in the country has conceptualised findings in terms of the historical/ideological setting of the country. Additionally, not only in Tanzania but also in other nations in the global South, studies on LCP implementation have focused predominantly on teachers, exploring their thoughts and attitudes towards LCP and their teaching practices. Student perspectives on LCP implementation have attracted much less scholarly attention than teacher viewpoints. Furthermore, hardly any research has considered the processes and likely improvements that can emerge from LCP implementation, despite the belief that LCP can lead to better learner outcomes. A narrow conceptualisation of the term 'pedagogy' to refer only to teaching techniques may partly account for the lack of scholarly focus on learner views and learning outcomes in relation to LCP implementation. This conceptualisation might have led researchers to investigate LCP implementation primarily from a teacher's standpoint, despite the fact that classroom ambience is negotiated by both teachers and pupils. Studies about LCP therefore need to examine how learners view and experience LCP and what learning improvements, if any, LCP might bring for them.

Given the dearth of thorough investigations of the historical and cultural influences on current pedagogical reform in Tanzania, as well as studies that focus attention on children's perspectives and experiences with LCP implementation, this book explores how primary schools in Tanzania have conceptualised and implemented LCP. It examines the extent to which LCP is implemented, how and why Tanzania's historical and ideological background has positively and/or negatively affected the implementation and what specific contributions LCP might (or might not) offer for pupil learning. The book attempts to address two questions.

1. How is Tanzania implementing LCP in primary schools given the historical/ideological context of the country's education system and provision?
2. Is LCP implementation associated with pupils' perceptions of classroom experiences and/or their learning outcomes? If so, which specific pupil perspectives relate to LCP implementation?

In answering these research questions, this book takes the following path. Chapter 2 sets the scene, laying out the theoretical and conceptual grounding of the book. Through defining pedagogy broadly and LCP specifically, the chapter delineates the book's conceptual framework, which will be used to assess and criticise the literature on LCP implementation in the global South. A thorough examination of existing research into LCP identifies gaps in knowledge, which this book aims to tackle.

Clarifying what to investigate prompts a discussion on how to do so. Although it may be unusual to spend an entire chapter on methodology in an academic book, this research aimed to make a methodological contribution to investigate LCP implementation in the global South – which has been explored predominantly through qualitative approaches – through a combination of case-based research

and mixed methods. Chapter 3 introduces a methodological framework, the comparative case-study (CCS) approach (Bartlett & Vavrus, 2017). CCS employs three methodological axes: the horizontal axis to compare multi-sited cases; the vertical axis to interrogate international and national policymaking; and the transversal axis to explore historical influences on current policy reform. I explain how I embed the mixed method and case-study designs within the CCS framework to examine LCP implementation in Tanzania historically, spatially and empirically.

The subsequent four chapters engage with the findings and analysis. Chapter 4 presents the transversal and vertical axes relating to the historical and political implications of LCP implementation in Tanzania. The transversal inquiry considers how Nyerere's legacy may or may not be conducive to LCP implementation, followed by historical tracing of the international spread of LCP. The vertical axis then focuses on policy transmission from international and national to local levels. This chapter, hence, provides historical, social and cultural contexts for the investigation of empirical data carried out in the next three chapters. Chapter 5 focuses on the results on teachers and teaching and introduces how teacher participants understand LCP and how they act it out in the classroom. The transversal inquiry pursued in Chapter 4 offers historical and epistemological explanations for the observed teaching practices discussed in Chapter 5. The analytical focus of Chapter 6 shifts to the various pedagogical dimensions beyond teachers and teaching, paying particular attention instead to pupils' views and experiences within and outside the classroom. A horizontal comparison of schools unveils how different sociocultural factors interact to produce various extents and forms of LCP implementation, observed levels of LCP and perceived learner-centredness reported by pupils. Attending to the remaining facet of 'pedagogy' (learning), Chapter 7 reports the statistical implications of LCP for pupils' learning outcomes. I explore the relationships between the observable act of LCP-related teaching, learner-centred experiences as perceived by pupils, their academic performance and their attitudes towards learning.

Chapter 8 brings together the findings presented in the previous four chapters. By integrating the conceptual and methodological frameworks the book has applied, Chapter 8 offers my analytical interpretation of the results along the transversal, vertical and horizontal axes. This leads to Chapter 9 on the potential contributions to pedagogical knowledge that the book makes. The chapter concludes the research by discussing its limitations, thus offering suggestions for further investigation of LCP implementation in the global South. This book draws on theories and methodologies used in different and interdisciplinary fields, but it ultimately aims to contribute to the study of pedagogy to strive for a better means to educate children in low-income contexts.

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2 Learner-Centred Pedagogy
Theoretical and Historical Background

The previous chapter delineated the three threads that underpin this book: (a) possible common ground between *ujamaa* and learner-centred pedagogy (LCP); (b) (in)compatibility between intended LCP policies and actualised LCP practices; and (c) relationships between LCP and pupils' learning outcomes. To provide a theoretical grounding to these inquiries, in this chapter, I look into the term 'pedagogy' while acknowledging its discursive aspect. The conceptual framework of pedagogy introduced here forms the basis for the book as a whole. Several educational philosophers and theorists – including Socrates, Rousseau, Dewey, Piaget and Vygotsky – are introduced. After highlighting how LCP has travelled beyond national borders, I explore the existing literature on LCP implementation in the region to orient the direction of the book and to elaborate on how I seek to contribute to current knowledge.

Framing Pedagogy Holistically

The term 'pedagogy' is an evasive concept, with scholars defining it in a multitude of ways. Brian Simon (1981) regarded pedagogy simply as the 'science of teaching' (p. 124). Basil Bernstein (1990), in contrast, considered it to be socially and culturally dependent. To differentiate content knowledge from pedagogical content knowledge, Shulman (1986) stressed the presence of learners in the latter definition. It is 'the particular form of content knowledge that embodies the aspects of content most germane to its teachability [and] the ways of representing and formulating the subject that make it comprehensible to others' (Shulman, 1986, p. 9). Alexander (2004, 2008) defined pedagogy most comprehensively by including all the dimensions of teaching described in the aforementioned definitions. He posits: 'pedagogy is the observable act of teaching together with its attendant discourse of educational theories, values, evidence and justifications' (Alexander, 2008, p. 29). Deconstructing this definition, pedagogy contains two complementary and necessary aspects: 'the observable act of teaching' and 'its attendant discourse'. It is the latter – the discourse concerning knowledge and values relating to what is to be taught – that must *precede* the act of teaching (Alexander, 2004; Tabulawa, 2013). Beliefs and expectations present in society inform and legitimise teaching practice.

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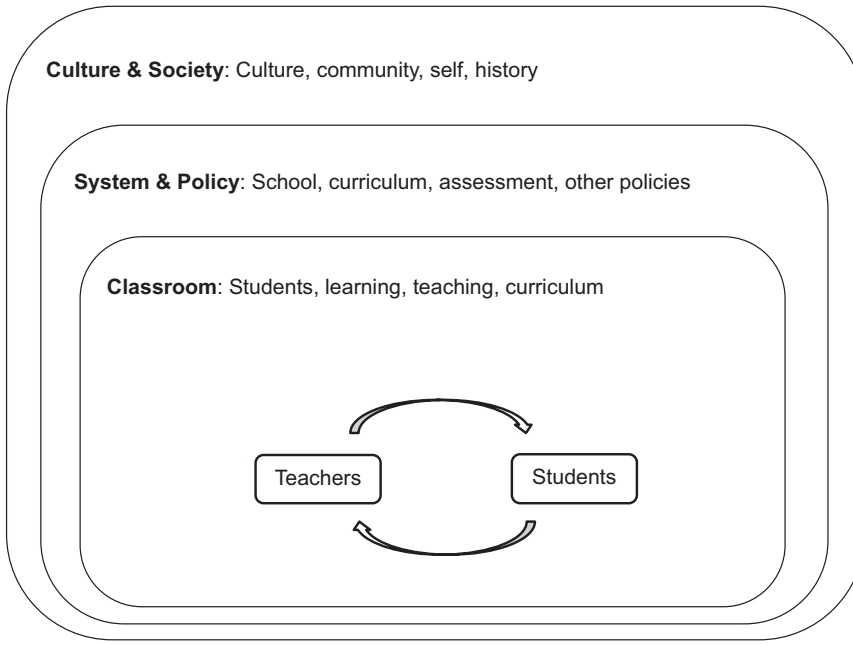

Figure 2.1 Conceptual framework of pedagogy
Source: Developed based on definition of pedagogy in Alexander (2004, 2008)

In explaining what constitutes the attendant discourse, Alexander identifies three distinct but inextricable domains (2004, 2008). These will form a critical part of the conceptual framework of the present study (Figure 2.1), as they suggest various pedagogical dimensions to be examined in a study on pedagogy. The first and most immediate category exists at the classroom level. It denotes pedagogy as ideas that enable teaching, such as:

- Children and students: their characteristics, development, motivation, needs and differences;
- Learning: nature, facilitation, achievement and assessment;
- Teaching: nature, scope, planning, execution and evaluation; and
- Curriculum: ways of knowing, doing, creating, investigating and making sense.

For these to take place in the classroom, the first domain necessitates pertinent policies and contexts. The second domain at the system/policy level justifies teaching happening in the classroom. The subcomponent of pedagogy in the policy/system layer includes:

- School: infrastructure, staffing and training;
- Curriculum: aims and content;

- Assessment: formal tests, qualifications and entry requirements; and
- Other policies: national and local policies, teacher requirements and training, equity and inclusion.

The third and larger domain of culture and history influences the aforementioned four elements. At the cultural and social levels, which support teaching and learning, there exist:

- Culture: the collective values, ideas, customs and relationships that shape society's view of itself, of the world and of education;
- Community: familial and local attitudes and expectations;
- Self: what it is to be a person and how identity is acquired; and
- History: the indispensable tool for making sense of both education's present state and its future possibilities and potential.

The attendant discourse is composed of these three domains, which manifest themselves in a complexity of pedagogy beyond the observable act of teaching. The conceptual framework (Figure 2.1) delineates what the term 'pedagogy' encompasses. It is socially, culturally and historically embedded, within which policies legitimate the curriculum and assessment at school. In the classroom, learning and teaching happen through interaction between teachers and learners. Any study of pedagogy thus should consider its social embeddedness and context dependency.

Despite the significance of the discourse attached to pedagogy, much research on this topic tends to reduce it to mere teaching methods or techniques (Alexander, 2004). Studies on LCP are no exception: although much scholarly attention has been given to teaching practices, as will be examined later in this chapter, most elements of the attendant discourse have been overlooked. But before analysing the literature on LCP implementation in low-resource contexts, I now discuss constructivism to provide a theoretical background to LCP and then to define the term LCP.

Constructivism: Theoretical and Epistemological Perspectives

To explore the multi-dimensional nature of pedagogy, this book employs a constructivist perspective paradigmatically, theoretically and methodologically. The constructivist paradigm provides epistemological and ontological lenses to investigate the implementation of LCP, underpinned by the constructivist learning theory. Constructivism also frames the methodological approach of the study (to be discussed in Chapter 3).

The conceptual framework (Figure 2.1) illustrates how pedagogy is culturally and socially constructed through its attendant discourse. Additionally, the framework shows that knowledge generated within classrooms is a product of negotiation between teachers and students, and between teaching and learning.

Constructivism asserts that reality is formed culturally and socially, and that no singular reality exists (Crotty, 1998; Patton, 2015). Pedagogy has its own spatial and temporal nature. To acknowledge this feature requires an epistemology that recognises the roles played by culture, social structure and human agency in constructing reality. Ontologically, constructivism regards different groups of people as those who construct realities in their own way (Patton, 2015). In the context of pedagogical research, students, teachers, schools and policymakers may perceive and interpret the same phenomenon distinctively. Teachers' perceptions of how they act and interact with their students may conceivably differ from students' perspectives on the same problem or situation. The constructivist view provides an epistemological and ontological tool to appreciate how different groups of people understand and practise LCP differently.

Through the constructivist paradigm, I investigate the implementation of LCP, also called 'constructivist pedagogy'. Although constructivism as a paradigm and constructivism as an educational theory share the term 'constructivism', the two can stand alone, and one should not confuse epistemological and educational constructivism. Constructivism as a paradigm emerged from the philosophical debate between realists and antirealists on how scientific knowledge is constructed (Nola, 1997). Thomas Kuhn (2012) made a seminal contribution to the development of the constructivist paradigm, advocating for cultural relativism when constructing knowledge. On the other hand, constructivism as an educational theory contrasts with didacticism. Nola (1997) traces its origin back to Socrates, whereas Matthews (1997) associates the birth of educational constructivism with Piaget's cognitive development theory in psychology. Both authors agree with the view that constructivism in the educational sphere denotes a model of teaching and learning. It is 'how beliefs are developed, not what makes beliefs true or what counts as scientific knowledge' (Matthews, 1997, p. 6).

Holding a constructivist view of knowledge does not equate with believing in a constructivist pedagogy, and vice versa. Matthews (2002) provides the example of how Thomas Kuhn, who developed and held the constructivist view of scientific knowledge, supported an anti-constructivist pedagogy. Similarly, Socrates, the father of constructivist pedagogy, held an anti-constructivist theory of scientific knowledge. Due to its equivocating nature, one needs to clarify what form of theory is to be appraised when examining the theory of 'constructivism'. In this book, I explore the educational constructivist theory of pedagogy, LCP, while holding the constructivist worldview of scientific knowledge.

Theoretical Grounding of LCP

Having explained that epistemological constructivism and educational constructivism exist within separate knowledge structures, I now elucidate constructivism as an educational theory that has come to be known as 'learner-centred pedagogy (LCP)'. I first explore the historical development of LCP in relation to its epistemology and then discuss the learning processes embodied within LCP. Because LCP is described using a variety of terms – from child-centred pedagogy and

problem-based learning to progressive methods – Tabulawa (2013) and Connell (1987) point to the difficulty of categorising historical characters with these interchangeably used terms. Here, I illustrate the historical path of the concept of LCP, wherein certain educative features can be traced back to educational constructivism. Through this historical overview of LCP and related pedagogies, I lay out its theoretical grounding, the basis that provides a rationale for its pedagogical traits and expected outcomes.

LCP has evolved through the understanding that knowledge is a product of social construction (Nola, 1997). The origin of educational constructivism dates back to the ancient Greek philosopher, Socrates (Schweisfurth, 2013). Often considered to be one of the founders of Western philosophy, Socrates had many students or followers, to whom he became an affable and influential interlocutor. Socrates questioned his students in the pursuit of truth. Taking the view that the acquisition of knowledge happens when learners retrieve knowledge from within themselves, Socrates's teaching always started from the students (Swardson, 2005). Socrates constantly asked them questions to bring out their existing knowledge. In addition, prior knowledge and experiences vary from individual to individual. Because Socrates paid particular attention to the nature and characteristics of individual students, Plato described Socrates's educational methods as being tailored to students' interests and beliefs (McPherran, 2013).

Jean-Jacques Rousseau (1712–1778), a philosopher who lived through the Enlightenment era (1715–1789), first contextualised the philosophical notion of constructivism within an educational framework, specifically that of child-centred pedagogy. The rise of empirical science during the era stimulated Rousseau to endorse discovery learning, where a child draws conclusions based on their observations and experiences (Darling, 1994). Rousseau's (2007) influential book *Emile* introduced the idea of child-centredness. It associated children's nature and ability with certain developmental stages and with individual variation. Every child has unique characteristics and differs depending on their stage and rate of growth. This legitimates their learning and the curriculum to be individualised. *Emile* was also the first theoretical proposal to urge teachers and parents to allow children more freedom for learning and to refrain from exercising power over them. Thus, Rousseau emphasised individual experiences in learning processes and brought children into the core of curriculum development (Tabulawa, 2013).

John Dewey (1859–1952) then situated learner-centredness in the practical context of education. He coined the term 'progressive education'. Pedagogical expressions often mentioned in LCP – such as reflexive thinking, hands-on experience and authentic assessment – were derived from Dewey's progressivism (Stone, 1996). Dewey contended that learning should be individualised and that a curriculum needs to be adjusted to the learning aspirations of each child. Additionally, what he aimed to achieve through progressive education was to foster the concept of democracy among children (Dewey, 1916). School for Dewey is a miniature version of society, where children are educated to become democratic citizens. He convinced educators of the importance of critical thinking abilities, problem-solving

skills and freedom for children. Not only did he promote progressive and democratic education, but Dewey also ran his own school. Experimentally actualising his ideal of education, he designed curricula based on children's interests, stressed collaborative learning and encouraged democratic relationships between teachers and students (Cuban, 1993). Through progressive education, Dewey attempted to disseminate individual and democratic forms of teaching and learning.

Dewey's notion of progressive education had little basis in science, but developmental psychologists such as Jean Piaget (1896–1980) and Lev Vygotsky (1896–1934) soon provided empirical evidence to back up Dewey's educational theory. Piaget's experimental observation of children's growth revealed that they exhibit different behaviours, abilities and interests at certain developmental stages, regardless of differences in culture or environment (Ginsburg & Opper, 1988). While going through the age-determined stages, children actively make sense of meanings rather than merely receiving meanings from others. Darling (1994) observes that Piaget scientifically corroborated Rousseau's account that every child has unique views, thoughts and feelings. Vygotsky's theory builds on Piaget's work, in that the former considered learning to be a knowledge construction process undergone as children move through developmental stages. However, as the father of the social constructivist theory of learning, Vygotsky suggested the significant role of social and cultural factors when establishing one's behavioural and cognitive knowledge. Children actively engage with their social environment instead of learning in manipulatively isolated contexts (Moore, 2012). Vygotsky stated that learning requires a teacher, or a more knowledgeable other, who communicates with and guides the child. This led him to emphasise dialogue between teacher and student, as well as between student and student, in teaching and learning. As such, Piaget and Vygotsky demonstrated that knowledge does not exist intrinsically but is acquired through experiences and observations at certain developmental stages. Applying their scientific schemes to the educational domain, it was suggested that the child is an active agent of knowledge construction. As such, it could be said that LCP has derived from a variety of educational philosophies and theories, mostly originating in the West.

Essential Features of LCP

Building upon the concept of constructivism, the characteristics of LCP can be categorised into five features: emphasis on individuals, independence of learners, democratic relationships between learners and teachers, attention to activities and learners' active roles in them, and the importance of interactions.

First, LCP assumes that knowledge construction is unique for each individual and is gained only through one's own experience. Plato's portrayal of Socrates stated that he acknowledged individual differences in how learners construct knowledge (McPherran, 2013). Rousseau in his *Emile* (2007) repeatedly underscored the need to individualise learning. His premise was that interpretation of the world depends on what individuals sense, believe and experience. This shapes learners'

interests and capabilities. Each learner has distinctive potentials, needs and learning styles, through which they constantly construct and reconstruct their knowledge.

The idea of knowledge construction leads to a second feature of LCP: learners' independence. Piaget and Vygotsky scientifically verified that there is no already-made knowledge sitting in one's head. Although Vygotsky (1978) illuminated the essential role of teachers in guiding learners, teachers are neither conceived to be the knowers nor expected to transmit knowledge to learners. By the same token, textbooks are not considered capable of delivering fixed facts. Learners build knowledge within their own contexts in relation to their previous knowledge and experience. In this learning environment, it is the learners who have ownership over learning, and they sometimes participate in curriculum development. They are encouraged to exercise their autonomy over what and how to learn. In the process, teachers act as facilitators and not instructors, and they only assist learners' knowledge construction (Ginnis, 2002).

Complementing learners' independence is the third aspect of LCP: democratic relationships in learner-centred classrooms. Here, the influence of Dewey's (1916) progressive education is prominent. LCP presumes equal power shared between teachers and learners. In addition to learner independence and autonomy, learners are encouraged to challenge and question teachers' knowledge. Through this democratic education, LCP aims to prepare children to become democratic citizens who are able to create a democratic society (Biesta, 2006).

Fourth, LCP also features 'learning by doing', wherein learners are expected to take on active roles. Adhering to the empiricist view, Rousseau expounded the supremacy of experience in learning processes (Darling, 1994). Autonomous children should freely move around by exploring and investigating things relating to their own interests. Rousseau's attention to experience leads to a focus on the human senses; that is, people understand better when learning with multiple sensory systems (Ginnis, 2002; Schweisfurth, 2013). Activities that involve physical movement in addition to using visual and audio material are more effective than merely listening to a lecture, for example.

The fifth, and final, characteristic of LCP involves social interactions. For Vygotsky, sociocultural experiences and interactions with others play an integral role in any process of learning. Learners discover knowledge by interacting and communicating with others. This is why LCP stresses group work and peer collaboration, as promoted by Dewey (1938). Additionally, the environment in which learners are situated needs to be safe and respectful; their personality and capability should be appreciated by teachers and other learners to maximise the individual's learning (UNICEF, 2009). In summary, LCP values the active and interactive involvement of learners, and it underscores learner autonomy and equal relationships with teachers.

Reasons to Promote LCP

By virtue of these attributes of LCP, scholars have identified three learning intentions that LCP aims to address, with cognitive, political and economic aspects.

Pertaining to the first intention, LCP proponents have argued that effective learning occurs when LCP is employed. Active processes of knowledge construction through cooperation and learner-driven learning help learners overcome Piaget's concept of disequilibrium, or the disparity between what is understood and what is not (Gallagher, 2003). Learning in an individualised way through each person's experience and belief enhances their understanding of content and its applicability to their own contexts. Furthermore, knowledge construction occurs through collaboration or co-creation, for which Vygotsky argued that discussions with teachers and peers enhance children's cognitive development (Moore, 2012). A learner-centred classroom entails interactions among peers and between teachers and students. Collaboration and communication produce 'something new' that may not be reached otherwise.

The second learning intention, the political dimension, suggests that education through LCP can prepare students to participate in democratic processes in society. As Dewey (1916) stressed, an equal power balance between teachers and learners will train the latter to express and negotiate their viewpoints in society. On a more radical note, LCP liberates learners from rigid and oppressive patterns of teaching. Paulo Freire, the leading advocate of critical pedagogy, which shares emancipatory and cognitive elements with LCP (Schweisfurth, 2013), promoted emancipation of the oppressed through education. His influential book *Pedagogy of the Oppressed* (Freire, 2000) urges the oppressed to:

> practice *co-intentional* education. Teachers and students (leadership and people), co-intent on reality, are both Subjects, not only in the task of unveiling that reality, and thereby coming to know it critically, but in the task of recreating that knowledge. . . . [T]he presence of the oppressed in the struggle for their liberation will be what it should be: not pseudo-participation, but committed involvement.
>
> (p. 69, emphasis in the original)

Nyerere's education policies mirror the educational theories of Dewey and Freire, to be detailed in Chapter 4. Democratisation through education was a major theme throughout his political career, calling for liberation of the people from mental slavery (Mbilinyi, 2004). Students will grow to become democratic citizens through the learner-centred approach according to LCP supporters.

Finally, LCP can be beneficial in economic terms. In the present global economy with rapidly changing environments, skills in memorising facts or meekly following others' commands have become less important (Vavrus et al., 2011). An increasing number of industries value abilities developed through LCP, such as problem-solving, creativity and collaboration with others. LCP can also train one to efficiently select from and utilise the overwhelming amounts of information available in today's age of technological innovation (Wagner, 2008). These higher-order thinking skills are necessary for successful living in today's complex and unpredictable world. Thus, cognitive, political and economic rationales justify and motivate the use of LCP.

Teacher-Centred Pedagogy as the Opposite of LCP

One pedagogy that is often contrasted to LCP is teacher-centred pedagogy (TCP), which is sometimes referred to as didactic, objectivist or 'chalk-and-talk' teaching. The philosophical tradition of teacher-centredness saw its rise in the rationalist epistemology advanced by Plato, Descartes, Kant and Hegel (Kelly, 2009). These philosophers doubted the trustworthiness of evidence based on human senses, calling for a rational mind that can obtain facts independent of human subjectivity. Proposing the idea of *a priori*, Descartes regarded knowledge as existing before humans came to know it. There is a fixed, unchanging truth regardless of individual perceptions or experiences (Davis et al., 1993). In the rationalist view, a priori knowledge can be retained and transferred from one person to another.

This view of knowledge gives epistemological underpinnings to teacher-centredness in classroom contexts. Kelly (2009) argues that how we conceive human knowledge to some extent determines how we design teaching and learning processes. With the conviction that knowledge exists independent of the knower, rationalist epistemology legitimises the 'right' form of knowledge. This in turn defines the role of teachers as knowledge experts and that of learners as passive receivers of knowledge. Innate knowledge supposedly sits in teachers' heads and textbooks; the aim of education is to pass on the correct facts from teachers to students. Furthermore, the separation of knowledge experts from knowledge beginners produces a power imbalance between the two (Pignatelli, 1993). Teachers who have the right answers gain fundamental authority in relation to learners to whom the teachers pour the answers into the learners' 'empty vessels'. Teachers with authority always decide the content and methods of knowledge transmission. In evaluating education quality, the reproduction of correct knowledge becomes a key. Thus, teaching and learning processes often take the form of rote memorisation and repetition rather than open-ended questions or collaborative work. In teacher-centred classrooms, one is thus more likely to observe teachers who direct learners by deciding what to learn and by passing on ready-made knowledge.

Notwithstanding the opposing features of LCP and TCP, the two should not be dichotomised. Classroom practices in reality involve a mixture of both techniques and ideas, and these practices cannot be categorised into one or the other; it is a matter of 'more or less' LCP or TCP (Schweisfurth, 2013). Despite the inappropriateness of polarising LCP and TCP, policy discourse on teaching and learning tends to dichotomise the two (Barrett, 2007; Hardman et al., 2012). It is LCP that has been diffused worldwide. Global aid agencies have worked as mediators in exporting and importing LCP beyond national borders, exemplifying a policy-borrowing phenomenon.

Existing Studies on LCP Implementation in the Global South

With the agreement on Education for All (EFA) in 1990 as a starting point, the late 1990s saw a number of educational reforms throughout sub-Saharan

Africa. Led by multilateral organisations, such reforms emphasised pedagogical remodelling from the 'chalk and talk' to the learner-centred approach, in addition to the expansion of the primary enrolment ratio and the distribution of adequate resources. Donor organisations have played an overpowering, almost absolute, role in shaping the educational policies of individual low-income countries (Mundy et al., 2016; Tabulawa, 2003). Following the international recommendation in favour of LCP, the governments of sub-Saharan Africa have moved towards adopting the concepts and practices of LCP in their educational programmes. Examples include popular movements towards curriculum changes in Botswana, Uganda and Senegal around 1990, all of which noted the importance of active learning (World Bank, 2008). South Africa has chosen the learner-centred and participatory approach for its post-apartheid curriculum reform (Stoffels, 2005). In addition, Namibia, supported by Danish development aid in 1990, has adopted this pedagogy in its Life Science curriculum (Chisholm & Leyendecker, 2008). Tanzania is not an exception to these neighbouring countries in embracing LCP. Chapter 4 analyses the policy transfer of LCP across time and space, and traces how Tanzania has followed international recommendations. The following section of this chapter looks at the empirical literature examining LCP implementation in the context of various low-income countries, and it aims to position this research within current debates on LCP.

Mapping Out the Literature

With the ever-growing diffusion of LCP as an international educational agenda, many researchers have investigated its implementation in low-income nations, and they have predominately revealed uncertainties and inconsistencies in this implementation (Guthrie, 2017; Schweisfurth, 2011). One of the most cited studies on LCP implementation, O'Sullivan's (2004) action research in Namibia, explored teachers' classroom practice and their conceptualisation of LCP. Interviews, lesson observation, assessment of learner skill and document analysis revealed several difficulties in implementing the pedagogy. The LCP concepts recommended in the policy documents exceeded the capacity of unqualified and underqualified teachers. Different views of knowledge made it hard for the teachers to understand the LCP languages. These findings led O'Sullivan to propose the concept of the *learning-centred* approach, instead of merely using the *learner-centred* approach, to raise the quality of teaching in Namibia and beyond.

A qualitative case study conducted by Mtika and Gates (2010) found inconsistencies in LCP implementation in Malawi. Four student teachers in a teacher-training programme showed a theoretical understanding of LCP. They nevertheless lacked the opportunity to practise LCP, resulting in their inadequate application of the pedagogy. Even if they had engaged with LCP, the trainee teachers revealed that they would have imitated how senior teachers teach – which was more teacher-centred – to maintain favourable relationships with their colleagues. Unfamiliarity with LCP among pupils also prohibited its appropriation. The pupils faced difficulty in participating in activities or group work, as they were not

used to these types of activities. This exemplifies the co-construction of classroom ambience between teachers and students depicted in the conceptual framework (Figure 2.1). Mtika and Gates (2010) concluded that the structure and culture of the teacher's college, the school and the classroom altogether contributed to hindering the LCP implementation advocated by policymakers. A number of other researchers (Altinyelken, 2010a; Frost & Little, 2014; Hardman et al., 2012) have also questioned the effectiveness and validity of LCP implementation in the context of the global South. Schweisfurth (2011), who undertook an extensive review of research on this topic, notes that the recent academic discourse on LCP in low-income nations leans towards criticism.

Studies in Tanzania have also revealed implementation ambiguities. The ethnography carried out by Vavrus (2009) explored the student teachers' practices and their views of constructivist pedagogy. Participant observation and in-depth interviews uncovered the struggles these student teachers had to overcome even if they understood the need to implement LCP. Vavrus emphasises the incompatibility of LCP with certain social and cultural expectations as well as with the teaching environment in Tanzania, calling for a *contingent pedagogy*. Barrett (2007) observed and interviewed primary school teachers. Her study also found that resource shortages and oversized classes compelled the teachers to blend teaching methods from different traditions. In line with Vavrus's notion of contingent pedagogy, Barrett criticises the polarisation of TCP and LCP to propose a mixed pedagogy sensitive to the local environment and culture.

Explicit and implicit barriers to LCP implementation exist between LCP desirability – which is recommended at the system/policy level of the conceptual framework (Figure 2.1) – and the implementation conflicts at the classroom level. Explicitly, material scarcity and human resource scarcity are widespread in the global South. Schools can lack basic educational materials such as books, poster boards and desks (Altinyelken, 2010b; Pontefract & Hardman, 2005). Due to shortages of teachers, overcrowded classrooms are common (Abd-Kadir & Hardman, 2007; Sifuna & Kaime, 2007). A learner-centred approach requires more teaching aids for drawing and creating. Group discussions and one-on-one interactions with students also require a low teacher–student ratio. Thus, the severe material shortages and the large class sizes challenge the successful implementation of LCP.

There are also several implicit barriers to LCP implementation. LCP-importing countries lack qualified teachers. Student teachers are not trained in a learner-centred manner at teacher-training colleges, either because of a lack of trainers or because of the short programme duration (Lewin & Stuart, 2003; Vavrus, 2009). Bennell and Akyeampong (2007) have argued that teachers in low-income countries can be unmotivated due to multiple factors, including poor payment, heavy workload and low social status. They might also lack basic content knowledge (O'Sullivan, 2004). These aspects hinder newly recruited teachers in starting to work within an LCP framework that requires a heavier workload than TCP.

Furthermore, other scholars have argued that some education systems in the global South are incompatible with the theory and methods of LCP. English is set

as the medium of instruction in many parts of Africa, although both students and teachers speak different languages at home. This makes it difficult for the students not only to communicate with their teachers but also to comprehend learning content (Prophet & Rowell, 1993; Sifuna & Kaime, 2007). Besides this, national exams in these countries generally do not assess critical thinking or problem-solving skills (Frost & Little, 2014; World Bank, 2008) but measure how much knowledge students have acquired. Such an exam system forces teachers to transmit knowledge relevant only to exam questions.

Finally, a barrier exists between the concept of LCP and the cultures of low-income countries. In South Africa, teachers adhere to 'personal value systems, local cultures, and contexts' (Harley et al., 2000, p. 299). The teachers assume their appropriate role as a respected figure, keeping social control over student behaviours, albeit not overtly. The researchers pointed out that such an 'unspoken culture' results in discrepancies between policy objectives and teachers' practice. In their study in Kenya, Hardman et al. (2008) attributed the absence of learner-centred activities to the culture of subordinate obedience prevalent in Africa. These cultural practices make the implementation of LCP problematic, because the pedagogy requires democratic relationships between students and teachers, encouraging the former to freely challenge the latter. To summarise, the lack of teacher capacity, the prevailing education systems and cultural differences seem to produce covert but influential conflicts between LCP desirability and its actualisation.

Gaps in Knowledge in the Empirical Studies

While substantial empirical evidence illustrates the discrepancies between policy ideals and local appropriation of LCP, the existing literature has overlooked critical elements of pedagogy. The research has predominantly centred on the act of *teaching* and *teachers* in the innermost sphere of the conceptual framework (Figure 2.1). Although *learning* and *students* make up equally important constituents, learners' perspectives and experiences have received much less attention (Schweisfurth, 2011; Tabulawa, 2013). The focus of existing studies has ranged from teaching practice (e.g. Harley et al., 2000; Nakabugo & Siebörger, 2001), teachers' beliefs and values (e.g. Brinkmann, 2019; Dyer et al., 2004) and their conceptualisation of LCP (e.g. Barrett, 2007; Sikoyo, 2010) to possible effects of teacher training on teachers' classroom practices (e.g. Hardman et al., 2009; Thompson, 2013). Even when researchers have included students in their studies, their analytical focus has been on teachers. O'Sullivan (2004) analysed students' work but only to evaluate teachers' practices and their perspectives on their own teaching. Hardman et al. (2009) interviewed pupils but only to assess the effectiveness of a teacher-training programme and not to inquire as to what the pupils themselves experienced.

Why, then, has the research community dismissed *students* and *learning* as a focus of investigation? Fuller and Snyder (1991) attribute this to our assumption that students are 'invariant, textureless creatures' (p. 275). Sorin (2005)

articulates this aspect from a sociological viewpoint. The image of the child as innocent, incapable and powerless – the child who needs adult protection – has traditionally dominated the construction of childhood since the late Middle Ages. When such an image of the child meets educational policymaking, interventionists have left out children by setting their exclusive focus on teachers as important change makers (Tabulawa, 2013). Student voices have therefore been 'silenced, suppressed, or ignored' (James, 2007, p. 261) both in terms of research attention and in the policy discourse surrounding LCP implementation in the global South.

The problem with attempting to understand LCP only through the lens of teachers misses an important component of pedagogy in general, as well as that of LCP specifically. What are students experiencing in classrooms and at school under the ongoing LCP implementation? Do they favour learner-centred activities over 'chalk and talk' teaching? Does LCP benefit learning or impair pupils' achievement? Due to the literature concentrating dominantly on the classroom practices and the perceptions of teachers, many of these questions have remained unanswered. This research practice presents a problem from the social constructivist perspective, within which LCP has a theoretical grounding and from which this study borrows its epistemological lenses. Social constructivism stresses the situatedness of knowledge within a social realm, in that knowledge is a social product of construction and reconstruction. In any classroom, both teacher and students participate in this joint project, negotiating knowledge, values, beliefs and human relationships by means of interaction (Fleming, 2015; Tabulawa, 2013). This signifies that pedagogy involves a co-construction of the classroom ambience by both agents. It is not only the teacher who dominates and controls the classroom processes, but the students also influence the teacher. Research on pedagogy also needs to acknowledge the distinctive views of teachers and students as indicated by the conceptual framework (Figure 2.1). This position renders a constructivist ontology that sheds light on the multiple realities of the same phenomenon, depending on what groups a person belongs to (Patton, 2015). Consequently, as Tabulawa (2013) asserts, any effort to examine and alter pedagogy must consider both teachers and students.

Furthermore, LCP policies ignoring learners' views are ironic, given the fundamentals of learner-centredness. The fathers of social constructivism and LCP, Socrates (Plato, 2005) and Rousseau (2007), espoused learning that is individualised to the learner's own interests, prior knowledge and experience. Dewey (1916) advocated democracy in education where children possess autonomy and have a say in their learning. Multilateral agencies inherit these beliefs, campaigning for students as active agents who have a voice (UNICEF, 2009; UNESCO, 2017). Scant research has focused on learners; hence, the lack of empirical evidence on their views, which could help improve policies, runs contrary to these tenets of LCP. Without understanding learners' perspectives regarding their needs and wants, LCP policies cannot be learner-centred: they remain a forced implementation from policymakers. Only after empirical evidence on learners' views is accumulated can policies truly centre on students.

In addition to narrative accounts of students' views and experiences, learning outcomes can demonstrate learners' perspectives. LCP proponents advocate that their pedagogy will bring effective learning to students. However, only a handful of studies have investigated the effects of LCP-related activities on learning outcomes in the global South (Westbrook et al., 2013). Ngware et al. (2014) conducted systematic observation analysis of classroom activities in high-, middle- and low-performing schools in Kenya. Their study revealed significant differences between the three groups in the time spent on particular activities, with high-performing schools providing more interactive lessons associated with LCP. In Barbados and Trinidad, Layne et al. (2008) evaluated before and after teacher training which emphasised interactive activities and students' ownership, both of which are associated with LCP. The researchers gathered data on pupils' scores and surveyed the pupils and teachers about learning and teaching attitudes. Their findings indicated an improvement of most pupils' performance as well as their positive attitudes towards working with others.

Although some studies suggested the positive impacts of LCP on student performance, the results from the Programme for International Student Assessment (PISA) imply lower achievement among the countries with more LCP practices than their Asian counterparts. In the latest PISA taken in 2018, the regions that marked the top ten in all mathematics, reading and science tests included four provinces in China, Singapore, Macao, Hong Kong, Korea and Estonia (Schleicher, 2019). The highest ranks were dominated by Asian countries, which generally use less critical thinking, creative learning or problem-solving activities in classrooms (Deng & Gopinathan, 2016). However, many Western nations such as the United States, the United Kingdom, New Zealand and Australia appear below the top ten, although Canada and Finland appear in the category for two of the three subjects. Other international examinations such as the Trends in International Mathematics and Science Study (TIMSS) and the Progress for International Reading and Literacy Study (PIRLS) have also shown mixed results in terms of the relationship between student performance and the degree of LCP implementation (Schweisfurth, 2013). Although there are instrument design and measurement issues with these international tests which may throw doubt upon their validity (see, e.g. Berliner, 2015; Forestier & Adamson, 2017), the correlation between the use of LCP and learning achievement seems to remain puzzling. As a result, some scholars including Guthrie (2017) and Nguyen et al. (2009) caution us about the academic ineffectiveness of LCP. They criticise the fact that multilateral donors spread LCP without enough empirical evidence substantiating effective learning. Therefore, whether LCP can translate into an improvement of student learning requires further investigation. Chapter 4 elaborates the historical trajectory of LCP in the West, indicating both its positive and negative consequences.

Academic achievement nevertheless is not the only component of learning outcomes; LCP also claims better learning attitudes – such as motivation, interests and confidence – as well as better social well-being. Criticising policy discourse and education research solely concentrating on high-stake examination results

when it comes to learning outcomes or achievement, Cornelius-White and Harbaugh (2010) highlight the emphasis on 'the development of the whole learner' (p. 105) in learner-centred tenets. The authors advocate an expanded notion of 'achievement' inclusive of the social, emotional and behavioural outcomes with which LCP is concerned. Ryan and Deci (2000) claim that LCP prompts intrinsic motivation, which in turn makes people more interested and focused. Applefield et al. (2000/2001) similarly suggest that giving complex tasks and problems increases a person's curiosity, together with their higher order thinking and engagement with the tasks. Ginnis (2002) advocates giving students control over their learning in LCP classrooms, which may make them more engaged in learning. McCombs and Miller (2007) would agree with Ginnis (2002), supporting learning through student autonomy over learning processes. As such, the non-cognitive outcomes expected to improve through LCP broadly involve dimensions ranging from motivation to learn and interest in learning, and confidence and ownership over learning processes, to learning behaviours.

Empirical studies have found both positive and inconsequential effects of LCP on these non-cognitive outcomes. Cornelius-White's (2007) meta-analysis on the correlation between LCP and student outcomes synthesised 119 studies conducted in the United States, the Philippines, Brazil, Germany, the United Kingdom and Canada. The findings suggested an overall positive correlation between the person-centred teacher variables and students' affective and behavioural outcomes, with relatively higher correlations appearing with students' participation, satisfaction and learning dropout prevention. Learner-centred instruction also allowed students to relate better to themselves and others, exemplified by its positive correlations with self-esteem, social connections and skills (Cornelius-White, 2007). Contrary to the positive indication of LCP for non-cognitive learning outcomes, a study conducted in Singapore by Tan et al. (2007) found insignificant effects of cooperative learning on students' academic achievement, motivation and perceptions. An experiment comparing the group investigation method and the whole-class method did not yield significant differences in the outcome variables; students' academic levels seemed to determine their outcomes irrespective of teaching approaches.

Although a sizable amount of research on the associations between LCP-related practices and affective and behavioural outcomes exists, to my knowledge, few studies have investigated such associations in the context of sub-Saharan Africa, where the global community has exhibited a surging interest in implementing LCP. This research therefore enquired into possible associations between LCP and non-cognitive outcomes focusing on students' motivation, interest, confidence, ownership and behaviour.

The viewpoints of learners can make valuable contributions not only to LCP policies but also to education policies in general. Children are one of the main beneficiaries of education. Their experiences and feelings at school influence how they learn and what they gain from their education. Fielding et al. (2000) state that school improvements, let alone the improvement of student outcomes, cannot happen without understanding students' points of view. Fielding (2004) highlights the importance of 'student voice' in informing education for civic

society and social justice. Hajisoteriou and Angelides (2015) further argue that education policy research should investigate children's voices to fully appreciate the policy trajectory and its implementation. Following these debates, there has been increasing scholastic interest in the student voices inside and outside school in recent years, especially after the inception of the United Nations Convention on the Rights of the Child in 1989 (Tangen, 2008). Much of this research has taken place in Europe and the United States (Fleming, 2015; Mitra & Serriere, 2012), but an increasing number of studies have been carried out in low-income countries. An example of this is a research study by Posti-Ahokas and Lehtomäki (2014) conducted in Tanzania, investigating factors affecting examination failure from the perspective of female secondary students. Open-ended questionnaires and in-depth interviews identified a number of familial and sociocultural factors, leading the researchers to compare them with the national policy. Their analysis uncovered a discrepancy between the students' concerns and policy objectives. In Uganda, Jones (2011) conducted a longitudinal ethnographic case study to explore the relevance of a national policy in girls' secondary education. Qualitative and quantitative data from female students revealed that the policy did not address the barriers they were facing. The research demonstrates the needs for considering girls' viewpoints if policymaking is to be successful in improving their education.

In these studies, children are perceived as social agents who have their own interests and who make decisions. This notion recognises that children possess their own experiences and interpretations that are conceivably different from adults' perspectives; thereby teachers cannot fully understand what and how students perceive their learning experiences (James, 2007). Moreover, students may reveal their opinions and experiences to researchers that teachers and schools might not disclose, so research focusing only on teachers' accounts may diminish the validity and integrity of the findings (Mitra, 2003). As Ellsworth (1989) insists, policy research needs to scrutinise student perspectives to investigate the differences between their experiences and the distinctive social positions of the adults. To conclude, the significance of children's viewpoints and the nature of pedagogy, especially that of LCP, necessitate the gathering of learners' perspectives on LCP implementation. Research from children's perspective can clarify what works and what does not work for the key beneficiaries of education, possibly leading to better policymaking, inclusive of both students and teachers.

In addition to the learners' views in the classroom domain of the conceptual framework (Figure 2.1), another spectrum of pedagogy that lacks attention in the literature entails the history in the culture/society domain. Existing arguments as to why LCP is not suitable in the researched countries tend to underline 'tradition', but few studies have investigated likely influences of tradition and history on the current pedagogical remodelling thoroughly. In explaining why teachers in Nigeria continued to use memorisation-based teaching, Hardman et al. (2008) attribute the reason to 'African respect for tradition and authority' (p. 65) but make this argument without explaining in detail which aspect(s) of tradition contradict(s) the tenets of LCP and how the tradition may affect LCP implementation. A qualitative investigation by Harley et al. (2000) similarly ascribes the

absence of LCP activities to local cultural mores in South Africa; however, they present little consideration of local cultures and traditions.

In Tanzania, despite the seemingly compatible pedagogical claims between *ujamaa* and LCP (see Chapters 1 and 4), to my knowledge, there are few studies that investigate the country's *ujamaa* philosophy vis-à-vis LCP. In particular, ethnographic studies by Barrett (2007) and Vavrus (2009) show how sociocultural expectation hampers LCP implementation, with both authors illustrating inadequate teacher training, material shortage and fact-based examination as the obstacles. A case study of an LCP-based teacher-training programme led by Vavrus and Bartlett (2013) similarly unveils various obstacles to LCP implementation including the memorisation-based assessment system and the constrained working and living conditions that teachers faced. Although these studies demonstrate the significance of contextual issues and sociocultural particularities playing out under the pedagogical reform, an historical lens to examine LCP implementation has not gained much scholarly attention in the country.

Bartlett and Vavrus (2017) nevertheless assert that the social issues of today are rooted in history, and the study of contemporary issues would benefit from tracing their history. One study that focuses on the historical elements of a country in relation to LCP includes the research by Tabulawa (1997) in Botswana. His historical investigation of the country's educational development suggests that authoritarianism in the local culture and the legacy of British colonial education interact to shape teachers' and students' views of knowledge based on a rationalist epistemology better aligned with teacher-directed pedagogy. Its epistemological dissonance with LCP makes it impossible for Botswana's local policy actors to accept LCP as appropriate, Tabulawa argues. In contrast, Chisholm and Leyendecker (2008), tracing post-independence history in Namibia and South Africa, observe pedagogical emphases similar to LCP already existing before its arrival in these countries. This helped LCP policies to be adopted without much national resistance in the Life Science curriculum in Namibia and post-apartheid education in South Africa, although classroom reality is said to be divorced from the policy ideal. Following these scholars, I examined the historical dimension of LCP implementation in Tanzania. The seemingly similar pedagogical concepts between LCP and *ujamaa* might offer new insights as to how and why history and local culture may or may not shape the appropriation of LCP.

Another aspect indicating a knowledge gap with respect to LCP in existing literature concerns methodology. Among the studies I reviewed, the majority (40 out of 65) used mainly qualitative methods, compared to 17 quantitative studies and eight mixed-methods studies. It should be noted that the review was not a systematic review but was conducted narratively with an aim to identify the empirical evidence the literature had accumulated, with what methodologies and relating to what samples or cases (Davies, 2000). Despite the limitation of the narrative review in its inability to generalise the overall findings, my claim about the paucity of certain methodology mirrors the views of Schweisfurth (2011) and Frost and Little (2014), who argue that large-scale, quantitative studies on pedagogy are lacking in low-income countries.

In general, qualitative and quantitative studies have contrasting theoretical bases and pursue different goals by gathering particular kinds of information. Based on the constructivist paradigm, qualitative research explores and describes people's acts in depth for the purpose of understanding social events from their own viewpoints (Bryman, 2006; Mahoney & Goertz, 2006). By contrast, quantitative researchers follow a positivist paradigm. They usually test a theory by means of experimental or correlational studies to explain the causes of social change and to generalise their findings to a wider population. Methodological differences may lead to contrasting findings. Whereas studies using different methods can corroborate each other if they come to similar results, contradictory findings may indicate a need for more research (Firestone, 1987). Given the relative lack of mixed-methods studies, I considered it more fruitful to conduct research on the effectiveness of LCP implementation in Tanzania using mixed methods, to which the discussion turns in next Chapter.

Conclusion

Learner-centred concepts and principles build on the work of Socrates, Rousseau, Dewey, Piaget and Vygotsky. These early philosophers and psychologists have contributed to the forming of the five characteristics of LCP, including attention to individuals, learner independence, democratic pupil–teacher relationships, active roles played by learners, and collaborations and interactions. Such principles arguably form a common ground with the educational agenda historically fostered by Julius Nyerere in Tanzania, with his hope for the democratisation of pupils, breaking school–community boundaries and educating future cooperative farmers. Exploring how the unique historical and social context of Tanzania might facilitate or hinder LCP implementation would make a knowledge contribution to the current research literature, particularly regarding schools in sub-Saharan Africa. Another domain that has lacked scholarly focus points to the co-constructedness of classroom reality. Existing research on LCP implementation has predominately paid attention to the act of teaching and teachers. Appreciating varied realities formed by different social groups, the constructivist epistemology and ontology employed in this research may help uncover the realities experienced by different groups. The book addresses these issues through the application of mixed methods, which have scarcely been employed in research on LCP implementation in the global South. The next chapter discusses in detail how and why I utilised a mixed-methods approach while employing the comparative case-study framework.

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3 Mixed Methods Within Comparative Case Study

Based on the research problem and context set out in the previous two chapters, the next five chapters provide the empirical underpinnings of the book. There seems to be a dearth of consideration of pupil's perspectives and learning outcomes in relation to the implementation of learner-centred pedagogy (LCP), historical contextualisation of leaner-centred ideas and practices in Tanzania's 'tradition', and methodological unevenness within the literature examining LCP implementation. Pertaining to the book's intended methodological contributions, here, I introduce the methodology and methods applied in this research. After setting out my philosophical stance, I explain the overarching methodological and analytical frameworks of this research: the comparative case-study (CCS) approach and an embedded multiple-case design. I then present mixed methods with six data gathering techniques. The combination of CCS and mixed methods is intended to enhance the methodological rigour of case-based research. The last part of the chapter briefly introduces my analytical approach within the CCS.

Philosophical Assumptions

As Chapter 2 elucidated, this book bases its paradigmatic view primarily on constructivism. Notwithstanding the primary application of constructivism, the relative lack of mixed methods in the existing literature motivated the present study to explicitly use quantitative methods derived from positivism. Employing qualitative and quantitative approaches in a single study requires justification as to how to mix paradigms from contrasting traditions. The dialectical stance of mixed methods esteems the value of different paradigms as illustrated by Greene and Caracelli (2003):

> [P]aradigms do matter significantly when making inquiry decisions . . . and all paradigms are valuable and have something to contribute to understanding; use of multiple paradigms leads to better understandings.
>
> (p. 96)

The underlying justification for this view suggests that communication between contrasting paradigms, which encourages incorporating different methods, contributes to a more comprehensive and valid understanding of a phenomenon.

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The conceptual framework (Figure 2.1) embodies the social and cultural nestedness of pedagogy, and the need for multifaceted views to be investigated in any research in this area. This study chiefly employs a constructivist worldview and values its importance. To expound on the relevance of constructivism in the research briefly discussed in Chapter 2, this view proposes that reality is formed culturally and socially and that no singular reality exists. Pedagogy has a spatial and temporal nature. Classroom reality is constructed, negotiated and shared between teachers and students through interaction in a particular social context at a particular time. Acknowledging this understanding of pedagogy requires an epistemology that recognises the roles played by culture, social structure and human agency in constructing students' knowledge.

Ontological relativism in constructivism values the multiple realities experienced by different groups who make sense of their own reality relative to others. Constructivists accept the diverse conceptions of realities built up by different groups of people. Teachers and students participate in the co-construction of knowledge, reality, meanings and relationships, but each party may perceive and understand the co-constructed truth differently.

Although constructivism acts as the primary paradigm in this research, I also integrated the quantitative approach associated with positivism. During the same research stage when gathering qualitative data, I collected questionnaires and exam scores without much interaction with the respondents to collect the data as objectively as possible. The statistical analyses looked for singular realities possibly existent within the relationships between LCP and pupils' learning. Quantitative examination aimed to draw an inference as to whether LCP contributes to better learning outcomes. Following the dialectical manner of mixing paradigms, I valued both ways of knowing – constructivism and positivism – throughout the research.

In line with the leading paradigm of constructivism, the research primarily used a qualitative approach with a subsidiary role played by quantitative inquiry, labelled a 'qualitative dominant mixed methods research' (Johnson et al., 2007, p. 124). The application of quantitative methods aims at strengthening the traditional qualitative design, where the former acts in service of the latter (Creswell & Plano Clark, 2011). Specifically, statistical relationships between the data from structured observation, questionnaires and pupil exams were intended to reflect pupil's views and experiences, which were also explored through interviews and focus group discussions (FGDs). Hence, the constructivist paradigm provides the epistemological and ontological lenses to explore how different groups of people understand and practise LCP, but the positivist paradigm also plays a role in supporting the qualitative findings.

Comparative Case Study as a Methodological Framework

This book explores the implementation of LCP historically and contemporarily at international, national and local levels, using the comparative case-study (CCS) approach. Originally developed by Vavrus and Bartlett in the comparative

education field (Bartlett & Vavrus, 2014, 2017; Vavrus & Bartlett, 2006, 2009), the authors used the CCS framework to explore whether and how historical development, social and political structures, and national and international policies might shape policy enactment in particular contexts. CCS emerged as a critique of established case-study research, defining it as an enquiry that is 'bounded', with a focus on contemporary phenomena (see Yin, 2014). Bartlett and Vavrus (2017) challenged this notion, conceptualising a case as a fluid entity determined by social actors, with historical information providing essential context. Compared to other approaches for policy analysis such as policy sociology (Ball & Junemann, 2012) and a composite model of policy borrowing (Phillips & Ochs, 2003), CCS places a particular emphasis on historical facets and their interactions with contemporary policy implementation and observed phenomena.

CCS investigates the case through three methodological axes: transversal, vertical and horizontal (Figure 3.1; Bartlett & Vavrus, 2017). The transversal axis explores historical dimensions of LCP implementation. It investigates how the contemporary LCP phenomenon, to be explored through the horizontal and vertical axes, has come out as a practice. The vertical axis looks at the interactions between different policy scales and within sociocultural network. It traces the human and nonhuman actors through which the national and international policies arrive at the designated locales. The horizontal axis signifies a comparison of multi-sited case studies. It is applied to analyse the similarities, differences and issues related to LCP implementation across distinctive locations.

The horizontal axis in this study denotes multi-sited comparisons of policy implementation. It juxtaposes classrooms within the interior layer of the conceptual framework (Figure 2.1). This process is intended to assess how differently and similarly each case within distinctive localities contextualises and appropriates certain policies at a given point in time. Applying a homologous horizontal axis

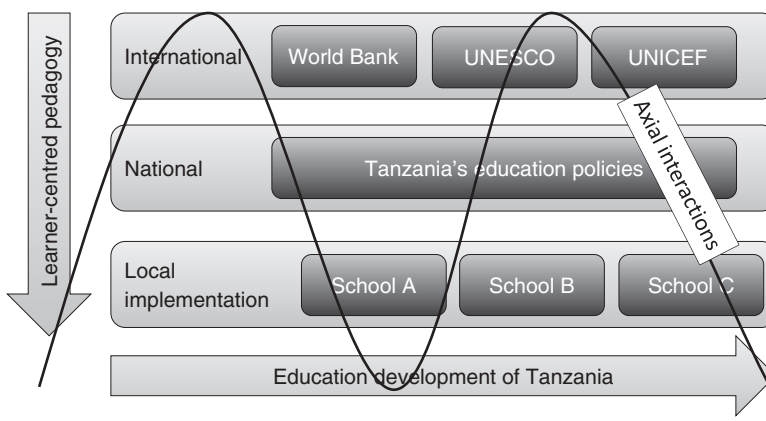

Figure 3.1 Comparative case-study framework

Source: Adapted from Bartlett & Vavrus (2014)

(Bartlett & Vavrus, 2017), in this study, the cases sitting along the same scale (i.e. schools) were compared. This aimed to reveal a similar logic to that taken by policy actors in implementing LCP policy, which may result in similar and distinctive practices.

The multiple sites explored through the horizontal axis exhibit a phenomenon congruent to socio-political contexts; the vertical axis situates the horizontal cases within this cultural and social network (Bartlett & Vavrus, 2017). The vertical axis links the outer two domains of the conceptual framework (i.e. culture/society and system/policy domains) with the classroom realm (Figure 2.1). It traces the human and nonhuman actors through which the national and international policies arrive at the designated locales. The vertical axis analyses how policy discourse within and between global and national institutions shape the social norms and practices of individual schools. The axis focuses on how local actors modify the normative policies to fit their schooling environment and their own needs and interests (Levinson et al., 2009). This research looked into how the international policies of LCP have spread throughout the global South, and in Tanzania specifically, while examining how these policies have permeated Tanzania's national policies. At the field site, classroom observations examined how and to what extent primary schools appropriated the policy's intentions. Interviews with teachers and FGDs with pupils explored their experiences with LCP implementation at school. Comparing the policy documents and what was happening on the ground, the vertical analysis aimed to uncover how the network of human and nonhuman actors at international, national and local scales may have influenced policy practice.

The transversal axis contextualises the horizontal and vertical components in the country's past and present. It traces how the data from different physical places (horizontal axis) and different policy levels (vertical axis) intersect with, and are influenced by, historical contingencies. Bartlett and Vavrus (2017) emphasise that any social issue of today is rooted in history: studying contemporary issues requires the tracing of history. The transversal comparison over time investigates how the contemporary phenomenon, explored through the horizontal and vertical axes, has emerged as a practice. It examines the influence of various powers leading to the adjustment and readjustment of policy ideals across time and space. In the conceptual framework of pedagogy (Figure 2.1), the transversal axis, in particular, represents history in the culture/society sphere while also considering the other factors in the domain. This book traces the history of education development in Tanzania from the indigenous period. It specifically focuses on Nyerere's political and educational philosophy, considering how *ujamaa* held both similar and contrasting concepts to learner-centredness. Integrating the horizontal comparison, interviews with teachers explored how the legacy of Nyerere may or may not have affected current Tanzanian society and participants' teaching practices. The analysis connects data about the history of Tanzania and teacher interviews to compare across horizontal cases and vertical examination over time.

To incorporate these three axes, a 'case' in the CCS approach encompasses a broader meaning than a traditional case study, which usually compares only horizontal cases. The framework particularly underscores comparison not only

between contemporary cases (along the horizontal axis) but also across time and spaces. In this research, a 'case' exists at two levels. First, Tanzania as a country was the case. Along the horizontal axis, I also examined multiple schools as cases. Each case exhibited unique but comparable characteristics, which I analysed separately and presented as a cross-case comparison. Comparisons within the horizontal cases (schools) and across three axes in my CCS threw light on how historical elements (transversal) and international and national policies (vertical) unfold distinctively at different localities (horizontal). Each axis concentrates on various facets of policy implementation, but they interact with each other. They may well overlap (Bartlett & Vavrus, 2017), as represented in Figure 3.1.

While CCS provides a comprehensive methodological framework for case-study research, it is not without drawbacks. One criticism that the approach may receive, ironically, is the lack of criticism it encounters. Various researchers have adopted the CCS model for their multi-sited case studies (e.g. Bellino, 2016; Foulds, 2014); however, they have seldom identified limitations of the framework, merely adopting the three axes as appropriate methodological tools. There is barely any research, to my knowledge, that has judiciously analysed, applied and refined the CCS approach. This in itself could be a weakness of the framework, given the lack of academic scrutiny. Analytical engagement with CCS would enhance this methodological tool.

One other possible limitation of CCS pertains to its methodological application. Derived from the anthropological tradition, CCS endorses ethnography-oriented studies. It is grounded in an interpretivist, constructivist epistemology that employs qualitative methods (Bartlett & Vavrus, 2017). Its conceptual basis derives from theories developed in anthropology, such as the extended case method, multi-sited ethnography and actor network theory. Bartlett and Vavrus unequivocally criticise variable-oriented, quantitative research for ignoring context, its unpredictability and the co-constructedness of human behaviour. At the same time, the authors appear to appreciate the usefulness of mixed methods:

> [W]e assume that most readers intend to use primarily qualitative research methods, such as observation, interviewing, and discourse analysis, but we also emphasize that questionnaires or surveys can help to gain a comparative perspective.
>
> (Bartlett & Vavrus, 2017, p. 7)

The authors provide a detailed introduction of the survey method for collecting quantitative and qualitative data to help investigate what is represented by the three axes (Bartlett & Vavrus, 2017). Nonetheless, there is little clarification as to how a researcher can utilise and incorporate a quantitative strand into the CCS approach; this is reflected in the much smaller number of mixed-methods approaches in existing CCS studies compared to qualitative studies. Even when researchers have used both quantitative and qualitative methods, their research

could be described as qualitative studies with an addition of quantitative data (e.g. Shriberg, 2009), rather than mixed-methods research with 'a specific research design that includes rigorous, systematic and the planned use of different quantitative and qualitative methods for collecting and/or analysing data in the same study' (Cara, 2017, p. 195).

Given the lack of explanation as to the relevance or irrelevance of mixed methods, this book attempts to expand the CCS framework methodologically. I propose the use of mixed methods when investigating the horizontal axis. Integrating quantitative components with a qualitative case study would not harm but rather would enrich the data. To elaborate as to why and how the study utilised mixed methods, I now discuss a mixed-methods research design using a case-study approach employed across the horizontal axis.

Embedded Multiple-Case-Study Design Along the Horizontal Axis

Along the horizontal axis of the CCS approach, this research applied a mixed methodology using the embedded multiple-case design, exploring more than a single unit of analysis embedded within more than one case (Yin, 2014). Individual schools form a unique single case, each of which contains multiple units of analysis at pupil, teacher, classroom and school levels. Schools include classrooms, a composite of physical facilities, educational resources and teachers. Because pupils, teachers and classrooms are situated within the schools, data from each of them constitute a portion of the school cases. Quantitative data at the pupil level represent one unit of analysis by itself but simultaneously exemplify a part of one school case. In the same manner, qualitative data from pupils, teachers, classrooms and schools provide detailed inquiry for the school cases. The smaller units of analysis thus are accumulated into larger units.

The process-oriented approach (Becker, 2009; Maxwell, 2013) undergirding the CCS framework suggests an *emergent research design* as opposed to an *a priori bounding* of the design (Bartlett & Vavrus, 2017). CCS applies iterative and contingent design to research, because researchers often encounter relevant phenomena and factors in the field. Nevertheless, Bartlett and Vavrus also recognise that various factors – such as research focus, researchers' skills, available time and resources – can determine the extent to which the researcher structures the study in advance. In establishing the embedded multiple cases in my research, I set two *ex-ante* criteria for case selection. This was because my review of the literature identified a few contextual factors seemingly critical to LCP implementation in the global South. These included school location and types.

First, a number of studies have drawn inferences from urban–rural disparities in explaining their findings. The scarcity of resources hinders an LCP implementation that encourages hands-on, creative learning (Kasanda et al., 2005; Schweisfurth, 2011). Rural schools are particularly under-resourced compared

to urban schools (Brodie et al., 2002; Thompson, 2013). They are also likely to have larger class sizes than their counterparts (Ackers & Hardman, 2001; Mtahabwa & Rao, 2010). These factors apparently hamper one-on-one student–teacher interactions and individualised activities. A large class size also forces the teachers to spend more time on classroom management and less on actual teaching. Furthermore, Wang (2011) has argued that the lower academic level of rural children urges their teachers to use a teacher-centred pedagogy, which is more time-efficient. O'Sullivan's (2004) case study in rural Namibia also revealed that the teachers were largely unqualified or underqualified in rural areas. This possibly made it hard for them to understand the concepts and/or values of LCP, O'Sullivan argues. Given the unequal teaching and learning conditions between urban and rural schools, this study probed circumstances specific to the location of the schools, which may explain the varied extent of LCP implementation. I especially noted resource richness, the number of pupils in class, and the attributes and backgrounds of pupils and teachers to compare their characteristics across different localities.

Similarly, public–private discrepancies appear to create different degrees of LCP appropriation. Private schools are better resourced and said to offer more quality education (Westbrook et al., 2009). Based on questionnaires and interviews carried out with teachers in Nigeria, Thompson (2013) claims that the resource-rich conditions with a smaller number of students in private schools provide a learning environment conducive to high- to middle-income countries exporting LCP. He professes that implementing LCP first in middle-class private schools in urban areas would allow for successful LCP appropriation in the global South. At the same time, private schools may experience more exam pressure relative to public schools. The advantaged families, who are more likely to support the academic success of their children than disadvantaged parents, send their children to private schools (Altinyelken, 2011). This gives the teachers reason to stress the importance of covering the syllabus and exam questions. They tend to practise fact-based teaching to align with the exam questions. This book interrogates how such variabilities between public and private schools are evident in relation to the extent of LCP implementation. It also asks what factors related to the disparity between public and private schools may lead to certain levels of learning outcomes of the pupils.

Combining the two categories of locations and school types, Figure 3.2 presents the embedded multiple-case design. The four categories – urban public, urban private, rural public and rural private – provide a framework to consider whether each group demonstrates similar and/or contrasting phenomena.

Fieldwork Along the Horizontal Axis

This section presents the procedure of the mixed-methods data collection sitting in the horizontal line of the CCS approach. I first explain how I selected cases and describe the participant characteristics. I then elaborate the six methods, each of which centred on a different facet of pedagogy depicted in the conceptual framework (Figure 2.1).

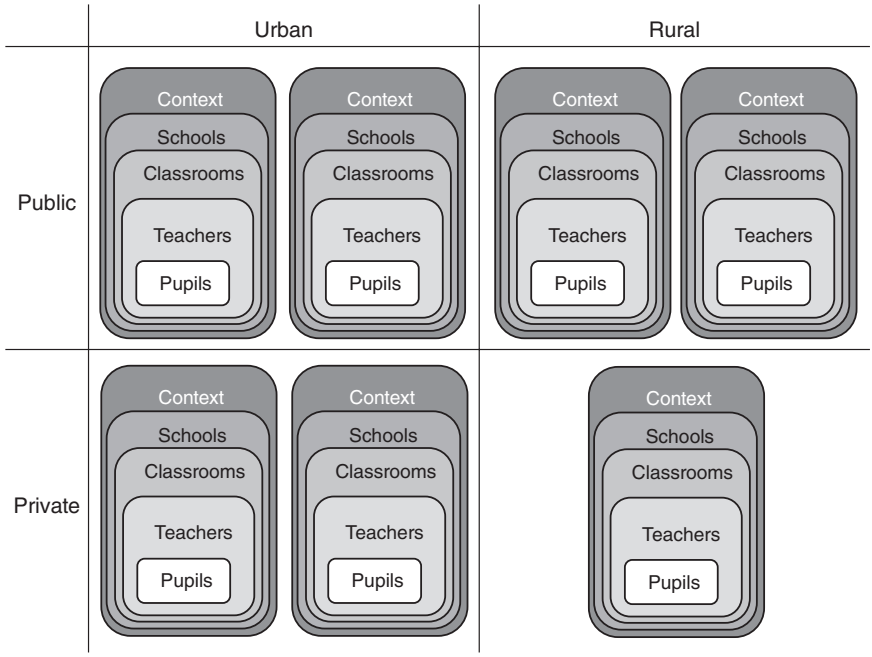

Figure 3.2 Multiple cases with an embedded unit design
Source: Adapted from Yin (2014)

Case Selection and Participants

The case selection applied a purposive sampling at two stages of the regional and school levels. The first stage involved choosing two regions in Tanzania depending on the results of the Primary School Leaving Examination. Academic performance acted as one of the key outcome variables in the search for its possible associations with the extent of LCP implementation. To purposefully include a variation in pupils' performance levels, I chose two regions that particularly differed in this respect: Dar es Salaam, the economic capital of Tanzania, and Kigoma, one of the poorest regions located in the northwest end of the country, were selected. These regions had consistently fallen in the top four (Dar es Salaam) or the bottom four (Kigoma) in the results of the Primary School Leaving Examination from 2009 to 2012 (MoEVT, 2010, 2011, 2012, 2013).

The next stage of case selection at the school level employed a purposive selection based on locations and school types, the two categories specified in the embedded multiple-case design. In each region of Dar es Salaam and Kigoma, I discussed with the District Education Officers the purposes of the research along with the selection criteria. From the list of the schools permitted for visits by the Officers, I visited those that fell in one of the four case groups, namely urban public, urban private, rural public and rural private.

Through the two-stage case selection at the regional and school levels, data were collected from 1,024 pupils sitting in a total of 17 Grade 6 classes, 17 teachers and 13 head teachers at 13 primary schools in the two regions of Dar es Salaam and Kigoma. Of the 13 schools, the five schools in Dar es Salaam had a total sample of 499 pupils (48.7%), and the eight schools in Kigoma had a total sample of 525 pupils (51.3%). In the embedded categories of the school cases, 509 (49.7%), 151 (14.7%), 326 (31.8%) and 38 (3.7%) pupils were in urban public, urban private, rural public and rural private schools, respectively (Figure 3.3). Table 3.1 describes the characteristics of the 13 schools that participated in the research.

The average class size was 60.3 (SD = 32.7), but class sizes ranged widely. Whereas the maximum class size at private schools was 40, Green (rural public) had 151 students attending the same lesson. At the analysis phase, one rural private school, Kawe, is combined with the three urban private schools (Highland, St. John and Islamia) due to the similar features it demonstrated, producing a single group of 'private school' regardless of location.

Of the 17 teachers at the 13 schools, 15 were male. Tables 3.2 and 3.3 summarise the teachers' qualification levels and educational backgrounds.

The proportion of male to female pupils was nearly equal: 506 male and 507 female pupils (11 missing) filled out the questionnaire and completed either an English or mathematics test. The return rate of the pupil questionnaire was 96.6%, whereas for the teacher questionnaire and the head teacher questionnaire, this was 100%. Most pupils (N = 715) were either 12 or 13 years old with an average age of 12.7, but the ages ranged from 10 (9 pupils) up to 20 (2 pupils;

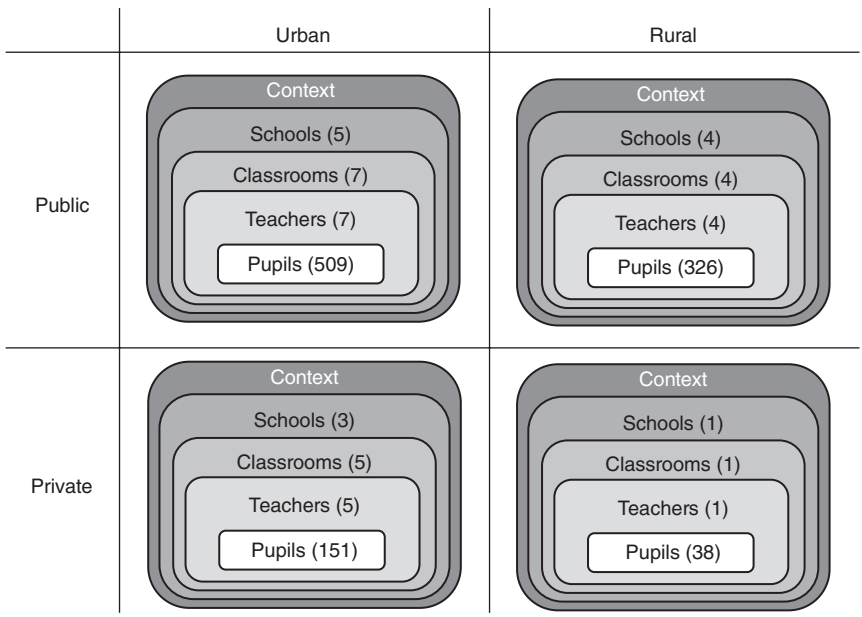

Figure 3.3 The number of participants

Table 3.1 Characteristics of participating schools[1]

	School pseudonym	*Region*	*Enrolment*	*Number of teachers*	*Transition rate*	*Has electricity*	*Has water*
Urban public	Amani	Dar	911	30	0.95	Y	Y
	Mwenge	Dar	1,804	45	0.97	Y	Y
	Umoja	Kigoma	637	18	0.61	N	Y
	Kwanza	Kigoma	959	19	0.72	Y	Y
	Bunge	Kigoma	641	24	0.09	Y	N
Urban private	Highland	Dar	338	22	1.00	Y	Y
	St. John	Kigoma	692	28	1.00	Y	Y
	Islamia	Kigoma	192	10	1.00	Y	Y
Rural public	Green	Dar	1,158	31	0.62	N	Y
	Baraka	Kigoma	697	21	0.05	N	Y
	Kisutu	Kigoma	235	12	0.86	N	N
	Siha	Kigoma	626	24	0.32	N	Y
Rural private	Kawe	Dar	549	27	N/A	Y	Y

Table 3.2 Teacher's qualifications

Qualification	*Number*
None	1
Certification	12
Diploma	3
Degree	1
TOTAL	**17**

Table 3.3 Teacher's educational level

Educational level	*Number*
Secondary (O-level)	10
Secondary (A-level)	2
2-year diploma course	2
University/equivalent	3
TOTAL	**17**

$N = 983$, SD = 1.2). This was partly due to not all pupils entering primary school at the official school age of 7, and partly because some pupils repeat the same grade(s) given their inadequate performance or drop out in the middle of their schooling.

At the time of this research, I had only a basic level of Swahili and did not speak any other local languages, and two research assistants helped me throughout the data collection and analysis phases. Manyama Anania, a master's degree student specialising in Secondary Education, was found through the Economic and Social Research

Foundation, which hosted me during the fieldwork in Tanzania. Manyama checked the accuracy and appropriateness of wording and questions in various instruments as well as provided on-site translations at schools in Dar es Salaam. In the analysis phase, he translated the observation data from Swahili to English and rated classroom activities and pupil–teacher interactions to obtain inter-rater reliability. Samwel Kulinga, a secondary school teacher with a master's degree in Education Management, helped me communicate with government officials and participants in the Kigoma region. At the analysis stage, Samwel checked the transcription of interviews and lesson observations translated by Manyama from Swahili to English.

Unstructured Lesson Observation

At each site for the main study, I invited Grade 6 pupils and teachers to participate in this study. All 13 schools had either one or two stream(s) of Grade 6, in which either English or maths classes participated. After obtaining their written and verbal consent, each of the 17 classes was observed and video recorded. I sat in front of or at the back of the classroom depending on the availability of space and/or a desk. While recording the lessons with the video camera, I took notes on what I saw, felt and experienced in relation to LCP features as much as possible.

The unstructured observation searched for teacher, pupil and classroom characteristics that may or may not be related to LCP implementation. By comparing different classrooms horizontally, it also aimed at making overall statements about LCP implementation in the primary schools of Tanzania. Unstructured observation hence examined the inner two layers of the conceptual framework (Figure 2.1).

Structured Lesson Observation

Within the classroom stratum (Figure 2.1), structured classroom observations supported by video recordings quantitatively documented how and to what extent teachers and pupils were practising LCP in classrooms. The data became one of the major explanatory variables when examining the associations of the level of LCP implementation with pupil views and with their learning outcomes. The observation measured the time allocated to certain learning activities. It also counted several types of pupil–teacher interactions to calculate the proportion of specific interactions with respect to other interactions.

The structured lesson observations employed three instruments. An observation protocol assessed how much learner-centred, teacher-centred and off-task activities were used in one lesson with respect to time. Each of these three categories entails three to five activities. LCP-related activities include individualised activities (Frost & Little, 2014), group work (Ackers & Hardman, 2001; Frost & Little, 2014), pupil demonstration (Ackers & Hardman, 2001) and learner-initiated questions and answers (Q&A) (Hardman et al., 2008; Pontefract &

Hardman, 2005). Tasks associated with teacher-centred pedagogy (TCP) are watching/listening (Frost & Little, 2014), taking notes (Frost & Little, 2014), reading aloud (Ackers & Hardman, 2001), writing exercises (Ackers & Hardman, 2001) and teacher-initiated Q&A (Ackers & Hardman, 2001; Hardman et al., 2008; Pontefract & Hardman, 2005). Finally, off-task activities involve teacher management (Frost & Little, 2014), transition (Ngware et al., 2012) and uninvolved pupils (Frost & Little, 2014).

An interaction codebook assessed pupil–teacher interactions in a quantifiable manner. It rated how many times particular behaviours of initiation, response and feedback (IRF) occurred in the classrooms. The codebook used in this study primarily adopted the IRF framework developed by Flanders (1970), but it applied the interaction categories employed by previous research specifically investigating LCP in the global South (Ackers & Hardman, 2001; Frost & Little, 2014; Hardman et al., 2008; Ngware et al., 2012; Pontefract & Hardman, 2005).

It should be acknowledged that classifying these activities and interactions as either LCP-related or TCP-related may violate construct validity, or the match between what researchers intend to measure and what they actually measure. Even if pupils work in groups, the task they are involved in may require memorisation or fact-based learning. In a similar vein, writing and reading silently could offer pupils the chance to freely express their opinions, which LCP embraces. Although aware of the limitations of structured observation, the rating of activities was purely based on the behaviour of the pupils to keep the consistency. When presenting the results in later chapters, I will be transparent about the violation of construct validity. Combination with other methods, especially with unstructured observation, also worked to triangulate the results based on the structured observation.

The percentage of LCP-related activities and interactions, in proportion to TCP-related activities and interactions, became a variable to measure the extent of LCP implementation. To check the inter-rater reliability of these variables, Manyama and I independently rated the data on both protocols based on agreed definitions. The coefficient agreement of kappa estimated $k = .95$, $z = 71.80$, $p < .001$ for classroom activities, and $k = .99$, $z = 204.45$ and $p < .001$ for pupil–teacher interactions. Both indicated a strong agreement between the coders (Landis & Koch, 1977).

Structured lesson observations also assessed available resources and the physical arrangement of the classrooms. A classroom resource check sheet was intended to estimate the resource-richness of the classrooms that could be one of the determinant factors for the extent of LCP implementation. I recorded: (a) the number of male and female pupils; (b) the number of textbooks; (c) the number and types of desks and chairs (whether they are connected or separated); (d) the seating arrangement; (e) materials or pupils' work on the walls; and (f) classroom resources, including a usable writing board, chalk, bookshelf, a teacher's table and a teacher's chair. The resource check sheet also included a space for drawing the classroom layout.

Semi-Structured Interviews With Teachers

I invited the 17 teachers whose lesson was observed to semi-structured interviews. All the interviews were recorded with an IC recorder with their written and verbal consent. The interviews had two purposes with regards to the research questions. Within both the classroom and school layers in the conceptual framework (Figure 2.1), the interview explored the teachers' motivation and rationales for their teaching practices, their understandings of LCP-related terms, challenges to implementing LCP, their views towards interacting with pupils and their relationship with parents. They also investigated Tanzania's ideological compatibility with LCP, which is one of the central inquiries of this research. This is described as the culture/society stratum of the conceptual framework (Figure 2.1) and the transversal and vertical axes of CCS (Figure 3.1). The second section of the interview indirectly asked how teachers, currently working at school, experienced ideas related to *ujamaa* such as social cohesion and equality. They talked about their perspectives on respectful practices in Tanzania, their knowledge of Nyerere and his political ideas, and how they viewed Nyerere's influence on society and on their teaching practices. Through the interviews, I aimed to contextualise the horizontal axis of CCS into the transversal and vertical frameworks, interrogating how the *ujamaa* philosophy corroborates and/or complexifies, or does not feed into, LCP implementation in Tanzania.

Focus Group Discussions With Pupils

Besides teachers, I also invited three girls and three boys from each of the 17 classes to take part in FGDs. A total of 107 pupils participated in the FGDs. They were selected by the teachers or on a voluntary basis, and the discussions were recorded with the pupils' written and verbal agreement. A topic guide explored the pupils' experiences inside and outside schools across the three tiers of the conceptual framework (Figure 2.1). The first two questions asked about preferred and less preferred learning activities. The next question asked what they would do if they could change one aspect of the school and/or classes. This sought to uncover any hindrance to LCP implementation from the pupils' perspectives. The pupils were also asked about their relationship with teachers or to what extent they followed teachers' orders. In the second part of the discussions, I explored their family life in correspondence with the culture/society layer illustrated in Figure 2.1. The questions included what the pupils usually talked about at home, whether they expressed their views freely to their parents, whether their parents sought the pupils' opinions when discussing family matters, and how equally they shared things with their siblings. These inquiries investigated whether Tanzanian society embraces child-centredness outside school, which might affect pupil–teacher relationships at school.

Self-Administered Questionnaires for Head Teachers and Teachers

The questionnaires for the head teachers (N = 13) and teachers (N = 17) assessed what school and teacher factors might be associated with the

implementation level of LCP. Their responses were also used to explore whether LCP yields positive and/or negative contributions to pupils' experiences and/or learning outcomes. The head teacher questionnaire first asked about their academic and professional backgrounds, as well as the structure and organisation of the school regarding the pupil–teacher ratio and transition ratio to secondary school. It also inquired about resource availability, including piped water, electricity, library, science laboratory, staff room, playground, school garden, telephone and photocopier, and the numbers of computers, toilets and books.

Subject teachers responded to the teacher questionnaire, which first enquired about teachers' academic and professional backgrounds. Teachers' views on school climate, school safety, classroom and school conditions, communication with parents, collaboration with their colleagues and job satisfaction (IEA, 2011a) were also sought. The head teacher and teacher questionnaires attempted to assess to what extent schools and teachers were 'LCP ready', in regard to the inner two layers of the conceptual framework (Figure 2.1).

Self-Administered Questionnaire for Pupils

The booklet containing the pupil questionnaire and English or maths exam was distributed to the 1,024 participating pupils. By relating the data collected in the lessons and the data from the head teachers and teachers, the self-administered questionnaire for pupils addressed the second overarching question as to whether LCP contributes to pupil learning. The questionnaire first asked about the pupils' socioeconomic and family backgrounds (Appendix 7: OECD, 2012; Rolleston & Krutikova, 2014) and parental help with homework (IEA, 2011b). It then enquired as to how pupils felt about their school and how they communicated with peers (IEA, 2011b).

In the next part, the questionnaire looked into the concept of *perceived-LCP level*, asking the respondents about their perceptions of their school and classroom experiences. As opposed to the *observed-LCP level* monitored through the unstructured and structured observations, perceived-LCP measures the subjective experience of LCP as reported by the pupils. The literature review in Chapter 2 identified a lack of focus on learners' viewpoints with respect to LCP implementation, with most research concentrating only on teachers' practices and beliefs; however, what the teachers say and what an adult researcher observes are likely to differ from the students' actual experiences (James, 2007). Knight et al. (2014) pioneered ways to explore direct and indirect relationships between observed- and perceived-LCP. At 17 primary schools in Qatar, the researchers systematically observed mathematics and science lessons to measure observed learning processes. They also distributed a self-administered survey to approximately 1,000 pupils to capture their perceived learning environment. Multiple regression analyses between the two variables indicated a significant association, although the regression model was not explicitly explained, and it is unclear what variables were included in the model. This study builds on

the research by Knight et al. by exploring possible relationships between the implementation degree of observed-LCP and pupils' perceptions of learner-centredness. This research also furthers results shown by Knight et al. by distinguishing the associations of observed- and perceived-LCP with pupil-learning outcomes.

In the pupil questionnaire, 14 questions on classroom activities asked the respondents to rate how much they thought learner-centred activities were taking place in the classroom. These questions were obtained from the Individualised Classroom Environment Questionnaire (Fraser, 1981; Fraser & Fisher, 1983) used in the study by Knight et al. (2014). The pupils rated the frequency of behaviour occurrence on a five-point Likert scale. The average rating from these questions denotes the perceived-LCP level, and this serves as both independent and dependent variables in statistical analyses. It aimed to answer the second overall question about the associations between observed- and perceived-LCP implementation, and their differentiated effects on several learning outcomes.

The pupil questionnaire also explored students' learning attitudes. Despite the belief in LCP enhancing learners' attitudes – including motivation, interest and confidence, and better social well-being (Ginnis, 2002; Weimer, 2013) – scant research has looked for relationships between these attitudes and the implementation of LCP. To examine their possible associations, I asked in the questionnaire how much pupils agreed with statements describing self-related beliefs, attitudes towards learning and learning behaviour on a four-point Likert scale. Some questions were adapted from the Trends in International Mathematics and Science Study (TIMSS) 2011 Student Questionnaire (IEA, 2011b), which investigates contextual information relating to students. Selected questions for this study asked about self-perceptions and attitudes towards learning (IEA, 2013), with items like 'It is important to do well in schoolwork' and 'Learning is harder for me than for many of my classmates'. Other questions were adapted from the Programme for International Student Assessment (PISA) 2012 Student Questionnaire (OECD, 2012). The questions, according to the OECD (2013a, 2013b), aim to capture students' self-related beliefs and planned behaviour. Example questions include 'If I wanted to, I could do well on my schoolwork' and 'I pay attention in class'. Because both the original TIMSS and PISA questionnaires were intended to assess relations of these measurements with mathematical and/or science literacy, some phrases were replaced with general terms. For instance, the sentence 'If I put in enough effort, I can succeed in mathematics' in the PISA 2012 Student Questionnaire was changed to 'If I put in enough effort, I can succeed in school' for this research. It should be noted that the measurement of learning attitudes is not treated as a psychometric test to quantify a person's characteristics and personality; rather, I used it as an indication of whether, and to what extent, LCP may be associated with positive attitudes towards learning as assumed in the LCP tenets. The pupil questionnaire as a whole inquired into all three domains of the conceptual framework (Figure 2.1).

Table 3.4 Sample size for each method

Data level	*Methods*	*Samples*
School-level data	Head teacher questionnaire	13 head teachers
Classroom-level data	Unstructured observations	17 classes
	Structured observations	17 classes
	Teacher interviews	17 teachers
	Teacher questionnaire	17 teachers
	Pupil FGDs	102 pupils (6 pupils/class × 17 classes)
Pupil-level data	Pupil questionnaire	1,024 pupils
	Subject tests (either English or maths)	1,024 pupils

Academic Exams for Pupils

To investigate whether LCP might contribute to pupils' academic achievement in the classroom realm of Figure 2.1, the pupils completed an English or mathematics test, depending on which subject was taught in the observed lesson. The tests were adapted from Tanzania's official exams, obtained from one of the local governments I visited to gain research clearance. The municipal council in that district had used the exams publicly when assessing the academic levels of the Grade 6 pupils at the public schools within its jurisdiction. Table 3.4 summarises the methods used together with the achieved sample size.

Transversal and Vertical Investigations

The methodological considerations discussed thus far have focused on the horizontal axis in the CCS framework. Yet examining policy implementation using CCS requires tracing the history of the researched settings and multilevel analysis across international, national and local levels. The transversal and vertical examinations were conducted chiefly through documentary analysis by (a) charting Tanzania's educational development post-independence using an historical lens and (b) appraising contemporary international and national LCP policy initiatives. As the study was not a systematic review but a narrative review of the literature, documents were found through database searches using terms such as 'Nyerere, ujamaa, Education for Self-Reliance, learner-centred pedagogy and Tanzania'. A non-exhaustive list of databases used includes British Education Index, ERIC, ProQuest Central, UNESDOC and World Bank. The literature was selected on the basis of availability and relevance (Davies, 2000), which for the transversal investigation involved Nyerere's policy documents, speeches and essays. The literature for the vertical analysis contained policy documents published by global agencies and by national governments in the global South and in Tanzania since the 1990s. Documents along each axis were examined separately following Rapley's (2007) advice for document analysis on exploring silences, oversights and

omissions, in addition to explicitly stated arguments and ideas, to uncover certain messages the official figures intended to convey. The documents were then compared across the axes for similarities and differences between Nyerere's educational philosophy and LCP tenets. As explained earlier, the historical review of the literature was compared with the present teachers' accounts gained from semi-structured interviews. I explored whether and how Nyerere's philosophy influenced the pedagogical approach of the present-day teachers, and how the attention of Education for Self-Reliance to learner-centred activities might have introduced nuances to current pedagogical practices in Tanzanian schools.

Not only the development of national policy but also the transversal appraisal situate the present pedagogical change in Tanzania within an international sphere. As the transversal review of LCP and Tanzania moves towards more recent times, it eventually feeds into the vertical axis of CCS. The vertical investigation scrutinises the transmission of LCP policies from the international to national levels in the present time. I inquired into how the development agenda and donor pressure affect the formation of Tanzanian national education policies by the Ministry of Education and the Tanzania Institute of Education. Through the vertical examination, I sought to deconstruct the hegemonic influences of global education forces in the policy formation processes.

The transversal and vertical examination of LCP implementation at different levels and across time leads to a horizontal comparison of LCP appropriation through multi-sited case studies of local schools. The incorporation of the three axes interrogates how the current LCP implementation at the local level is situated within a particular historical, social, cultural and political context, and also within global, national and local discourses. Figure 3.4 illustrates the overall CCS framework applied to this research.

Conclusion

This chapter has discussed and justified the methodology and methods applied in the study. The CCS methodological framework facilitates addressing the research gaps. In the culture/society domain of the conceptual framework (Figure 2.1), CCS prompts a transversal, historical investigation of Tanzania's educational development. Coupled with the constructivist paradigm, the CCS enquiries also help to engage pupils' views and experiences in the system/policy and classroom strata of Figure 2.1. While constructivism essentially leads the study, the mixed-methods embedded design is supported by the use of quantitative methods. This enables the study to challenge the scarce empirical evidence regarding the association between LCP and learning outcomes. At the 13 primary schools situated in the categories of the embedded multiple-case design, I collected data from 17 teachers and 1,024 pupils using six methods.

The next four chapters present the findings and analysis. Chapter 4 discusses the transversal and vertical inquiries. The two axes trace indigenous education, educational policies enacted by Nyerere and contemporary international LCP policies. Given this contextual information, Chapter 5 reports data from teachers and teaching. In analysing why vertically transferred LCP policies were appropriated

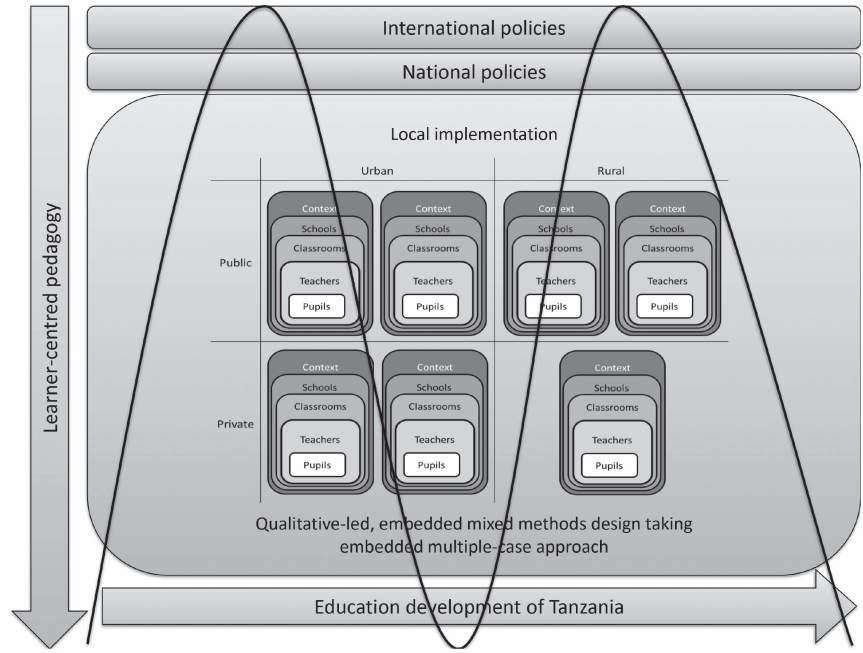

Figure 3.4 Research design within the CCS framework

in particular ways in Tanzania, the chapter utilises the transversal axis to offer historical and epistemological explanations. Horizontal comparisons of urban public, rural public and private schools follow in Chapter 6. The chapter shifts the focus to contemporary issues of pedagogical dimensions that appear to affect LCP implementation distinctively at different localities. Chapter 7 then examines whether and how LCP could contribute to pupil learning while differentiating the relationships of learning outcomes between observed- and perceived-LCP before moving to a cross-case synthesis of the three CCS axes in Chapter 8.

Note

1 Average transition rate from primary to secondary school during 2012–2014 academic years. Kawe School had no data on the transition rate, as the school opened in 2012 and had not produced any graduates at the time of my visit.

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4 Historical and Contemporary Contexts of Tanzania and the Global South

Learner-centred pedagogy (LCP), developed by constructivist educational philosophers and theorists, has travelled around the world from Western to non-Western countries. The past decades have witnessed the adoption of international LCP policies by the governments of low-income countries, notably in sub-Saharan Africa, including Tanzania. Existing studies have revealed ambiguities and the incompatibility of LCP implementation in the context of the global South. However, the empirical literature has left out three critical components of pedagogy as delineated in the conceptual framework (Figure 2.1). In the classroom domain, existing studies have mostly investigated teachers' understandings of LCP and their practice, despite students being co-constructors of knowledge, values and interactions. Another element in the same domain that requires further explication is that of learning. The lack of an evidence based on the links between LCP implementation and learning outcomes casts doubt on the effectiveness of LCP on children's learning. Within the culture/society layer of the conceptual framework, the research on LCP carried out in Tanzania has overlooked possible historical influences on current LCP implementation. Some aspects of Tanzania's educational history appear to align with constructivist educational theory. Thus, Tanzania's present endeavour to implement LCP, following international recommendations, needs to be historically situated.

Applying the comparative case-study (CCS) approach, this study investigated the inextricable links between the history (transversal); macro-, meso- and micro-levels (vertical); and local cases (horizontal) of LCP implementation in Tanzanian primary schools. This chapter establishes the foundation for the transversal and vertical axes, which Chapters 5–8 will employ to analyse the horizontal findings. The transversal axis explores indigenous education and educational development under Nyerere. I also introduce interviewed teachers' views on Nyerere to link the past and the present, attending to whether and how Nyerere's *ujamaa* philosophy and educational agenda continue to exist today. The transversal axis eventually meets the vertical axis, which analyses policy diffusion and appropriation at the international, national and local scales. The embracing of LCP by global agencies permeates Tanzania's national educational policy. The transversal and vertical examination provides historical, societal and cultural background to the data explored in Chapters 5–8.

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Transversal Inquiry

Educational Development Before Independence

It appears, based on the principles guiding education and on how learning is organised, that traditional Tanzanian society incorporated some features of LCP, although knowledge and child–adult relationships were fixed. While it is recognised that what is now Tanzania was, and is, a heterogeneous society (Wedin, 2004), the aim of education generally was to pass on established values and ideologies to the next generation, but talent could also thrive naturally within mutually respectful master–learner relationships (Cameron & Dodd, 1970). What is perhaps more fundamental in relation to LCP is that many traditional communities integrated learning into everyday life, where children acquired knowledge of agricultural competencies and ceremonial procedures at their own pace (Castle, 1966; Raum, 1967). There was no formal structure with a knowledgeable teacher in front of the classroom; rather, learners were exposed to knowledge, observed the skills of the master and constructed their knowledge progressively. Knowledge and rituals were not simply memorised, but passed down in the form of narratives, storytelling and so forth. Later, these were intended to have an impact on an individual's character, their sense of responsibility, duty and belonging (Furley & Watson, 1978; Mushi, 2009). Because Tanzanian society highly valued communal relationships to maintain tribal harmony, collaboration with others in learning processes was common. In this seemingly 'democratic' space for knowledge acquisition, the transmitted rituals and traditions were, however, fixed and could not be questioned. Society esteemed elderly people as the possessors of knowledge, and there were rigid hierarchical relationships between older and younger generations (Cameron & Dodd, 1970; Coulson, 1982).

It was alien influences that introduced school-based, textbook-oriented education to Tanzania. From 700 CE, Arabs had a significant presence along Tanzania's East African coast, whither they had previously arrived through trading routes. They had a huge impact on language formation and on a form of schooling that stressed rote learning. It has been argued through sustained research that cultural integration and intermarriage with the indigenous population occurred, producing a new culture and language called Swahili (Yeager, 1989). Arabs and Persians were therefore the first to bring formal literacy education to Tanzania. At mosques, they taught children reading, writing and calculus and also Islamic religious tenets and practice with textbooks. Unlike in communal learning, the emphasis was on rote memorisation and individual learning (Mushi, 2009), though not necessarily 'individualised' in terms of the abilities and interests of each child. Hence, the Arabs brought education with more teacher-centred practice to the coastal area.

The next foreign influx arrived with Western Christianity. Missionaries from Germany, Britain and France came in the latter half of the 19th century and trained African evangelists, albeit a select few (Coulson, 1982; Furley & Watson, 1978). In addition to Christian tenets and the Gospel, mission schools provided

literacy education with teacher-centred practices not only in the coastal area but also in the continental interior. Similar to the Koranic schools established by the Arabs, they depended on written texts divorced from real African experiences. Christian missionaries also stressed individual advantage and dismissed cooperative activities (Cameron & Dodd, 1970). On the whole, Western education spread the decline of the practical and communal features of traditional learning among the wider African population.

This trend continued, and even intensified, under German and British colonial education. In the mid-1880s, Germany proclaimed Tanganyika – now mainland Tanzania – as a protectorate. Demanding skilled labourers for infrastructure development and literate workers for government administration, the Germans established a secular education system in 1890. They also made Swahili the national language to govern the country efficiently. Education under the British colony, which began after World War I following the German defeat, dealt with Western knowledge unrelated to local matters (Morrison, 1976). British colonial rule downgraded the status of Swahili, making English the 'elite' language (Wedin, 2005). The British also set up an examination system to screen bright children. This encouraged an ethos of competition and, arguably, 'selfishness' while further lowering the cooperative aspects of African education, which had already been dealt a blow through Koranic modes of learning. The once indigenous cooperative learning sprit had all but disappeared over time. Consequently, scholars have criticised education in Tanzania at the end of the colonial era as bookish and examination-oriented (Cameron & Dodd, 1970).

The Legacy of Nyerere in the Education Sector

Upon independence, the newly created Tanzania inherited colonial legacies ranging from an underdeveloped infrastructure, a racially segregated political system, social inequalities, ignorance and illiteracy, to the prevalence of poverty and disease. To tackle these problems, Nyerere advocated for African socialism in collective villages, which he called *ujamaa*, and an education policy known as Education for Self-Reliance (ESR). *Ujamaa*, translated as 'familyhood', expresses Nyerere's version of socialism. It is not only a political philosophy but also a social and economic policy that stresses the spirit of community belonging and mutual respect. Humanitarian concepts such as egalitarianism and human rights constitute the tenets of *ujamaa* (Stöger-Eising, 2000). With an aim to build a self-reliant, socialist state, *ujamaa* forms the conceptual basis of Nyerere's social and educational policies. His intention was to regain Africa's traditional way of living in the 20th-century, postcolonial setting (Ibhawoh & Dibua, 2003).

Though not an educationalist by background, with his teaching diploma obtained at Makerere University and some years of professional teaching experience, Nyerere was committed to education. He believed in its power to transform the nation. Three years after independence, Nyerere argued for the right to education for all children. His 1964 speech titled 'Expectations and Responsibilities of Children and Youth' (*Mategemeo na Wajibu wa Watoto na Vijana*) articulated

two priorities in educational development. To provide equal education, those who were able to enrol in school must teach their fellows left out of school (Lema et al., 2004). Nyerere also focused on removing the boundary between community and school. Denouncing the colonial education that had separated the school from village life, he aimed to integrate the two entities. Nyerere underscored the relevance of the curriculum to local circumstance (Mbilinyi, 2004, p. vii); people from the community were expected to be involved in educating children, and the latter in turn were supposed to learn history and culture from the former, both inside and outside school.

Nyerere's commitment to equal education stuck in the memories of the interviewed teachers. Two teachers from different schools, Aisha and Moyo, mentioned that there were no private schools under his leadership. Everyone regardless of their background could receive education entirely free of charge. Teacher Nyo further explained:

> He [Nyerere] made sure that all the school had the equipment. There were enough books for every student. There were enough. You didn't have to buy a pen.
>
> (Interview with Nyo, 4 November 2015)

The fact that all schools across the country used the same textbook was also conducive to equal education, as another teacher, Kito, suggested. These teachers honoured the former president in promoting equality of opportunity in education.

In this process, Nyerere saw teachers as agents for social change. Being a dedicated teacher himself, he had a great deal of trust and confidence in the teachers of that time. Nyerere (2004a) delivered a speech at Morogoro Teachers College in 1964 on 'The Power of Teachers' while preaching that:

> It is they, the teachers now at work and now going through Training College, who are shaping what Tanzania will become, much more than we who pass laws, make rules, and make speeches!
>
> (p. 42)

Those who educate the young determine the future of Tanzania. The respect Nyerere paid to them was remembered by teacher Nyo, who used to teach under Nyerere's presidency. In his interview with me, Nyo expressed that he received a better treatment at that time: 'During Nyerere's time, the teachers were given enough salary to make them last the month. But today, we've been forced to find other means of getting enough money to support ourselves'. Nyo's comparison of the treatment of teachers under Nyerere and the current government suggests the teacher's grievance against the latter.

Grounded in his respect and trust in teachers, Nyerere issued his seminal policy paper in 1967, 'Education for Self-Reliance' (ESR; Nyerere, 1967). The paper criticised the formal education brought by Europeans for its remoteness from

the life of the majority of Tanzanians. It was simply meant to train government servants. The president denounced it and intended to make education part of a pathway to African socialism articulated in the 1967 Arusha Declaration. Given that Tanzania was a predominantly agricultural country, Nyerere stressed the aim of education to produce good farmers; hence, ESR expected most pupils to cease schooling after primary education to work in agriculture.

In need of farmers to serve village communities, Nyerere repeatedly pronounced the importance of cooperation and not individual endeavour. School and community were to be integrated. He asserted that, 'Schools must, in fact, become communities – and communities which practice the precept of self-reliance' (Nyerere, 1967, p. 396). ESR invited local farmers to teach children how to cultivate the land. The school farms would eventually be able to generate income, which would allow the school to self-sustain its operations instead of relying on external funding from the government and charities. Teaching and learning should take place outside classrooms, where 'pupils can learn by doing' (p. 397):

> The possibilities of proper grazing practices, and of terracing and soil conservation methods can all be taught theoretically, at the same time as they are put into practice; the students will then understand what they are doing and why, and will be able to analyse any failures and consider possibilities for greater improvement.
>
> (Nyerere, 1967, p. 397)

A few of the present-day teachers mentioned self-reliance when remembering Nyerere. Teacher Rajabu believed that self-reliant activities would contribute to national advancement. According to teacher Abdu at another school, Nyerere's policies ensured that most pupils acquired skills through practice, so that they could depend on themselves when interacting with the environment. Both teachers regretted that the importance of self-reliant activities had been downgraded since Nyerere's presidency.

To align how people live with what children learn at school, the curriculum should be made relevant to local conditions, and this should be done democratically. Nyerere emphasised that it is the children, and not the government, who reside in the community. Instead of a rigid curriculum imposed by the state, ESR was meant to grant plenty of flexibility to teachers and pupils in planning their teaching and learning (Nyerere, 1967). Student organisations were to be established, where pupils could make decisions concerning school governance. These endeavours, Nyerere thought, would nurture self-reliant graduates who contribute to their community after seven years of primary schooling. He detailed the key aspects of ESR at a conference attended by secondary school heads in 1967. Nyerere (2004b) proposed the benefit of student committees in involving students for planning what they learn and allocating resources:

> [An] essential part of the success of our attempt to build a democratic society is the combination of free discussion followed by the full implementation of

> joint decisions; if the children get used to this at school they will at the same time be learning about the responsibilities of citizens in a free society.
>
> (p. 93)

Practising discussions and decision-making at school would produce democratic citizens, Nyerere argued. To successfully implement his educational ideals, the president travelled throughout the country, visited schools and spoke directly to teachers about the aspirations of ESR and the role of teachers (Lema, 2006). The teachers were expected to adjust the syllabus to local settings, practise self-reliant activities and cooperate with local authorities.

Despite these arguably learner-centred provisions as advanced by Nyerere, ESR was soon found to be a failure. Cameron (1980) called ESR 'a personal pamphlet' (p. 106), while Urch (1989) considered it 'more of a slogan than a reality' (p. 218). Although Nyerere's ideas were progressive and 'horizontal', they did not align with the desperate educational situation and demands of the time. Due to the shortage of human and financial resources, newly independent Tanzania had to depend on the already established educational means and structures inherited from the British (Bartlett & Vavrus, 2013). Academic mastery continued to be emphasised over practical skills, and success in examinations remained crucial in climbing the educational ladder (Buchert, 1994; Oketch & Rolleston, 2007). Assessment strategies kept testing student ability to memorise and recall rather than higher-order thinking skills. This caused the proposed curriculum change laid out in ESR to barely be achieved. Despite Nyerere's wish to change the curricula, they remained rigidly determined without allowing teachers and students to introduce changes or to provide input, due to there being an excess of content to be covered (Mosha, 1990). School farms were compulsory affairs, with no exceptions or room for negotiation. Authoritarianism continued in classrooms, as there was no room for students, or even for teachers, to make decisions on the imposed curriculum. Hence, dependence on the available curriculum, textbooks and assessment schemes persisted.

Only seven years after the enactment of ESR, Nyerere admitted to this reality in the Musoma Resolution: '[W]e must accept that most of our objectives have not been achieved' (Nyerere, 2006, p. 102). Nyerere espoused the principles of learner-centredness decades before international agencies took it to Tanzania through LCP programmes, but his means of implementation were authoritarian. ESR was seen to be Nyerere's idealistic provision and not a realistic programme. As a result, Nyerere's wish to restructure education in Tanzania did not come to fruition, and the Tanzanian school system remains similar to that of other sub-Saharan African nations.

In line with the aforementioned literature, the teachers participating in this research indicated a discontinued legacy of Nyerere's educational philosophy at the present time. Most teachers admired Nyerere and his *ujamaa*-related ideas, with many regretting that such ideas do not exist in Tanzania today. Teacher Abdu claimed that the syllabuses had changed from Nyerere's era, in that self-reliant aspects of the syllabus had disappeared. Kito talked about different textbooks

being used at different schools. Those who worked in public schools, such as Aisha and Moyo, notably pointed out the social gap created by the public–private disparity, expressing their sympathy for the pupils at their schools who are not able to afford the cost of a private school. Jamba at another public school detailed this point:

> [D]uring Nyerere's time, there were only government schools. Everybody went to school, so they received education freely. But according to the development and interaction of the ideologies, from socialist to capitalist, we have nowadays got private schools which even teach Chinese. So, those parents who are well off send their students to better schools, and this one [Jamba's school] is regarded for poor people. We now have many [social] classes – classes of higher people, middle, lower and the lowest, even the lowest.
>
> (Interview with Jamba, 22 October 2014)

Nyo also held Nyerere in high esteem, comparing him with the 'corrupted' politicians who served after him. The changes in educational policies made by them had destroyed education in Tanzania, Nyo argued. Hence, the present teachers largely showed their respect for Nyerere as a politician and educationalist, while highlighting the discontinuation of Nyerere's policies in today's Tanzania.

In addition to these teachers' accounts of the historical change from the time of Nyerere, including syllabus changes, equality of opportunity and politicians, one crucial aspect in the classroom layer of pedagogy (Figure 2.1) was completely missing from their interview responses. When asked about their understanding of Nyerere's political and educational ideas, none of the teachers touched on how teachers should act and how learning occurs. None brought up Nyerere's intentions regarding practising democracy at school or working with peers collaboratively. The teachers' ignorance of these dimensions of ESR reflects the literature arguing that the policy was never implemented. ESR spelt out the ideology as to what education should look like in terms of Tanzania becoming a socialist nation, but how the philosophy should be translated into action remained ambiguous (Otunnu, 2014).

Given the consistency of accounts in the literature and interviews with teachers, the pedagogical ideas of ESR seem not to have spread at the time of Nyerere's presidency, and present-day teachers in Tanzania were not likely to inherit his legacy in this respect. The transversal analysis has provided the historical context specific to Tanzania's educational development. The focus now moves to processes of policy transmission from international and national to local levels, while the transversal axis fuses into the vertical axis. I trace the history of LCP spread within English-speaking Western nations, and from there to non-Western countries. The vertical exploration will eventually reach the post-Nyerere period covering the international attempt to support LCP implementation in Tanzania. The secondary analysis along the transversal and vertical axes contextualises the policy cycle historically, socially and culturally.

Vertical Inquiry: International and National Endeavours to Implement LCP

Spread of LCP in the United States and the United Kingdom

LCP is said to be a traveling policy. After being theorised by Rousseau and Dewey and scientifically supported by Piaget and Vygotsky, LCP first began to be widely accepted in the Western world – mostly in the United States (US) and United Kingdom (UK). Progressive methods were disseminated to public schools in the US during the first half of the 20th century. The US Office of Education and the National Education Association recommended learner-centred beliefs and its usage as 'best practices' (Stone, 1996, p. 10). According to Ravitch (1983), by the late 1940s and 1950s, people in the US no longer considered progressivism as a particular teaching method but simply accepted it as a desirable pedagogy. It was not called 'progressive education' anymore but merely termed 'modern education', 'new education' or 'good educational practice' (Ravitch, 1983, p. 43). Turning to the UK, the so-called Plowden Report published by the then Central Advisory Council for Education in 1967 was largely influenced by Piaget's work on child development (Schweisfurth, 2013). Providing a detailed explanation of development phases, the report put children at the centre of learning processes. Its emphasis shifted from a standardised curriculum to children's meaning-making. The Plowden Report also underscored discovery learning, learning based on each child's experience and interests, and problem-solving skills (Alexander, 2008).

The basis of current national educational standards in the US rests on the praise of LCP. The pedagogical theory forms the foundation of teacher education, as advocated by the National Council for Teachers of Mathematics and the National Science Teachers Association (Fosnot, 1996). Not only in the US and the UK but also in other Western countries, governments have adopted the concept of LCP as desired teaching. The Education Review Office of New Zealand evaluated primary and secondary schools that employed student-centred learning as 'the most successful schools' (Education Review Office, 2012, p. 7). Australia's Education Foundation also prioritised student-centred learning and promoted it to narrow the gap between the affluent and the disadvantaged (Black, 2007). Therefore, from the beginning of the 20th century, LCP has been popularised in some English-speaking Western countries with strong backing from their respective governments.

There has been a great deal of praise for LCP in these cultures. In their guide to LCP practice for teachers, McCombs and Miller (2007) advocate learning through teachers' and other students' support, as well as learning through student autonomy over learning processes. Weimer (2013) has compiled research evidence supporting the successes of LCP implementation in the US. Based on various studies carried out in the country, Weimer concludes that LCP facilitates the intrinsic motivation of students and brings them deep understanding of learning content. Additionally, Brandes and Ginnis (1986) working in the

UK context indicate how student perceptions changed after introducing student-centred pedagogy, as they became more responsible for their learning and built trust in others.

Since the beginning of its spread, nevertheless, criticism of Dewey's progressive education has also prevailed in both the US and UK. Scholars, teachers and parents in the US worried about the lack of intellectual basics and that of respect for others. Smith (1949) warned that students merely pursued their own interests and did not gain any knowledge (as cited in Ravitch, 1983, p. 72). Hutchins (1972) asserted that too much stress on individual needs ended up not meeting any needs and that schools failed to teach fundamentals. In addition to these rebukes against progressive education in the US, the Plowden Report was castigated in the UK. In the Black Papers published in response to the government's White Papers, Froome (1969) lamented the absence of order in primary school, pointing out children playing with toy-like objects and walking around and chatting. These accounts show that a number of researchers expressed doubts and indicated the operational problems of progressiveness.

Whether the adoption of LCP enhances pupils' academic attainment is also questionable. Cross-national examinations seem to show few correlations with respect to LCP implementation, and the trend has been unchanged since the late 20th century (Alexander, 2008). Chapter 2 took the Programme for International Student Assessment (PISA) results as an example to illustrate this. Several other international tests – including the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS) – have also shown ambiguous and inconsistent relationships between academic achievement and the extent of LCP implementation. The undesirable low pupil attainment in some English-speaking nations in the West has been attributed to the prevalence of LCP by some researchers (e.g. Dimmock, 2000; Schweisfurth, 2013).

International Recommendation of LCP in the Global South

Despite its ambiguous effectiveness in teaching and learning, LCP has permeated non-Western, low-income countries. In the aftermath of World War II, education has been recognised as a powerful instrument in peace building and in the setting up of a new global order. Multilateral organisations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Children's Fund (UNICEF) and the World Bank have spread 'common values of individual freedoms and shared prosperity' (Mundy et al., 2016, p. 3) in the process. LCP, advocating individual learning and freedom of expression, played a major role in achieving this goal. Education for All (EFA) marked the outset of LCP dissemination, derived from critiques of structural adjustment programmes in the 1990s. Implemented by the World Bank and the International Monetary Fund, the programmes demanded political and economic changes from publicly controlled to market-oriented businesses (Mushi, 2009). With the introduction of school fees and the privatisation of schools, education in heavily

indebted countries underwent a sudden drop in the gross enrolment ratio and a deterioration of education quality (Vavrus, 2005; World Bank, 2014).

The international response against this phenomenon came together in the launch of EFA in 1990. This demanded that sub-Saharan African and other countries in the global South make consecutive educational reforms. Shifting the focus of global educational reform from access to education to the quality of learning experiences (World Bank, 2000), EFA aimed to provide quality education for all members of society from children to adults, where 'quality' means a constructivist teaching style to enhance students' active participation and inquiry-based learning (Vavrus, 2009). At the World Declaration on EFA, the donor agencies agreed that curriculum and learning materials should be 'learner-centred [and] participatory' (Haddad et al., 1990, p. 68). They specified the necessity of reforming the curriculum to reflect cultural underpinnings and learner needs, and the need to transform the teaching–learning process into a learner-centred one (World Bank, 2000). By focusing on each student and stressing their interests, LCP is considered to be effective in accomplishing the intended outcomes of individual development and equal rights. EFA has thus urged many sub-Saharan African countries to adopt new curricula that promote LCP as the official pedagogy in primary schools (UNESCO, 2007). Three major global policy frameworks – child-friendly school (CFS), Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) – have followed EFA to spread LCP.

Led by UNICEF, CFS also espouses LCP as a preferred teaching strategy. First undertaken in Thailand in 1997, CFS is a policy framework that advocates the rights of children – including their participation in the community, their involvement in decision-making, their health and a child-centred approach to teaching and learning – to be achieved through classroom practice and school management (UNICEF EAPRO, 2006). The CFS project claims that teachers ought to use child-centred and interactive teaching methodologies, as these 'make learning enjoyable and exciting to students and improve their retention, participation and performance' (UNICEF, 2009a, Ch6, p. 23). Teachers are expected to encourage children's active participation, use cooperative group work, interact with individual students and emphasise critical thinking and problem-solving skills rather than simple memorisation of facts. The CFS framework thus stresses LCP characteristics as its central tenets.

Curriculum reform is a large component of meeting international goals for education outlined not only in EFA but also in the MDGs enacted in 2000. The umbrella of MDGs' eight targets underlines people-centred development (UNDP, 2014). In the education sector, MDGs aim to achieve universal primary education with EFA and CFS initiatives running in parallel. The policy accelerates educational reforms with 'student-centred learning' (UNDP, 2014, p. 22). UNESCO (2015) reports that one of the achievements of EFA throughout the MDG years from 2000 to 2015 includes that 'textbooks became more student-centred' (p. 204). UNICEF has also tried to shift the attitudes of head teachers and teachers towards child-centred approaches under MDGs (UNICEF, 2009b).

Inheriting the 'unfinished business' of EFA and MDGs (UNESCO et al., 2015, p. iii), the Incheon Declaration for Sustainable Development Goals continues to embrace LCP. It envisages 'sufficient numbers of teachers and educators of quality using learner-centred, active and collaborative pedagogical approaches' (UNESCO et al., 2015, p. 8). SDGs promote participatory methods to motivate and empower learners socio-emotionally, and aspire to support their use of knowledge in their day-to-day lives (UNESCO, 2017).

All these policies propose the application of learner-centred, participatory teaching practices, while labelling a teacher-centred, 'chalk and talk style' as inappropriate for teaching. Development agencies thus commonly believe LCP to be a universally effective teaching methodology and a promising way to improve learning outcomes for pupils. Their shared intentions to switch pedagogical approach have had a notable influence on educational reform in individual countries across sub-Saharan Africa, as illustrated in Chapter 2.

A point worth noting is the language used in these policy discourses. LCP policies understand 'pedagogy' rather narrowly, referring exclusively to the act of teaching. For instance, UNESCO (2007) introduces the 'child-centred curricula' and discusses 'a move away from "chalk and talk" methods to more discovery-based learning' (p. 29). It implicitly equates curricula with a teaching technique. CFS appears to adopt a holistic approach involving school design, community involvement and children's rights, but its pedagogical focus is on teachers and teaching methods, mostly considering how best to train teachers to use a child-centred approach (UNICEF, 2009a). At first glance, SDGs distinguish learning objectives from learner's perspectives by listing what learners should be able to do as a result of 'quality education' (UNESCO, 2017, p. 18). However, the initiative assumes that using a 'participatory method' enables learners to be motivated and empowered. Even if these policies use terms like learning or learners, their attention is directed primarily towards teaching practices and classroom processes. As Tabulawa (2013) criticises, educational development discourse tends to 'single out [the *teachers*] as the most important change agent, to the exclusion of other participants, such as *students*' (emphasis added, p. 12). Borrowing Alexander's (2004, 2008) definition of pedagogy, the international policy frameworks speak of observable teaching practice while leaving aside the attendant discourse of pedagogy such as values, knowledge and beliefs. The tendency to trim down pedagogy to only teaching methods implicitly indicates a technicist assumption held by the global players, whereby LCP implementation will be successful as long as the recommended teaching practices are employed in the classroom.

Behind these global educational reforms lie objectives that are not educational but rather ideological and political. Tabulawa (2003) asserts that education – or more specifically pedagogical practices – paves the way to constructing citizens and nations aligned with the perspectives of the governing body. Political democratisation is a prerequisite of capitalism, or the free-market economy, as the latter involves individual freedom and autonomy (Boron, 1995). Tabulawa contends that in order for low-income countries to economically advance in the same way

as high- and middle-income countries, political pluralism is a necessary condition. One of the interviewed teachers, Mosi, explicitly explained this point:

> After the fall of the USSR [the Union of Soviet Socialist Republics], who was the pioneer of socialism, many socialist countries including Tanzania fail to implement their . . . their ideas, their views. They followed capitalist countries. And they got what? Condition. If we want to get their [capitalist countries'] help, their loan, we had to join capitalism with democracy.
>
> (Interview with Mosi, 10 November 2015)

Mosi continued to argue that Nyerere's *ujamaa* policy was eventually terminated due to the forced shift from African socialism to capitalism, after which *ujamaa* became history. Tanzania nowadays practises capitalism, although the people still hold with the ideal of socialism, Mosi explained.

The school is a microcosm of society. LCP promotes democracy with its emphasis on learner autonomy, participation and ownership. Democratic social relationships in schools stimulate students to be democratic personnel (Dewey, 1916). Tabulawa (2003) claims that aid agencies' interests lie in the permeation of democratic capitalist ideology. Thus, the promotion of LCP is an ideological project by international donors, which Carney (2008) calls a ritual of 'cultural imperialism' (p. 40). Since the collapse of the Union of Soviet Socialist Republics (USSR), Tanzania has been caught up in this cultural remodelling.

National Embrace of LCP in Tanzania

Tanzania has espoused the concept and use of LCP, and explicitly states a commitment to international schemes and a pro-LCP approach in its education policies. Its recent embrace of LCP dates back to the Primary Education Development Programme enacted in 2006, which declared the government promise to aspire to the targets of EFA and MDGs. The emphasis is placed on 'promot[ing] new teaching methods which are child-centred with a variety of inquiring methods, problem-solving, critical thinking and practical learning' (MoEVT, 2006, p. 27). The Basic Education Master Plan lists policies and government programmes aligned to the realisation of EFA, and states explicitly the government intention to 'implement agreed international commitments' (MoEC, 2001, p. 2). The Plan makes a specific reference to UNICEF's CFS, urging the adoption of 'learner-centred methods' to reduce education disparities (MoEC, 2001, p. 23). More recently, basic education curricula for Grades 3 to 4 'emphasizes learner-centred approach in which the pupil is the focus' (MoEST, 2016, p. 28). It promotes activities suitable to pupil abilities and a variety of participatory ways of teaching and learning. The embracing of LCP has continued, and currently, the Ministry of Education, Science and Technology has emphasised pedagogy to facilitate 'improv[ing] the quality of teacher training to promote a more learner-centred approach' with an expected result that 'teacher trainers acquire and transmit pedagogical skills for learner-centred teaching' (MoEST, 2017, p. 8).

In addition to these policy pronouncements clearly in favour of LCP, the Tanzanian government has taken the initiative in realising these policies by training teachers appropriately. The In-Service Education and Training Strategy for Primary School Teachers, established by the Ministry of Education and Vocational Training in 2009, calls for attention to existing teaching habits that 'do not easily support learner centred methods' (MoEVT, 2010a, p. 9). It sets the improvement of quality education as its goal, where the quality indicates LCP that entails 'interactive teaching' and 'active problem solving' (p. 15). Additionally, the National Competency Framework (MoEVT, 2010b) articulates that competent teachers should 'identif(y) pupil's interests and talents' (p. 9), 'compos[e] meaningful group tasks' (p. 14) and 'create a democratic atmosphere in the classroom' (p. 14). These policy documents reveal the Tanzanian government's concentration on LCP in educational settings.

More recently, the curricula for the certificate and diploma in teacher education programmes, formulated jointly by UNESCO and the Tanzania Institute of Education, aim to educate qualified teachers in participatory and interactive pedagogical skills (MoEVT, 2013a, 2013b). Specific mention is made of how teaching methods should be taught at teacher-training colleges – that is, to 'engage students in active learning' and to 'create opportunities for student–tutor interactions and student–student interactions' (MoEVT, 2013b, p. 22).

UNICEF has played a critical role in the actual implementation process of these policies. To institutionalise the CFS model at district, ward and village levels, it has hosted a range of workshops for teachers and visited field sites (UNICEF, 2009c). In seven designated districts, UNICEF and Tanzanian local governments have reviewed teacher-training courses and allocated resources. This policy transmission process indicates that the Tanzanian government, with generous support from multilateral donors, has taken steps to equip teachers with LCP skills so that they can practise LCP in the classroom.

Following the focus on *teachers* and *teaching* in the international recommendations, the Tanzanian national agenda has also concentrated on the act of teaching. Its education policies mainly promote ideal teaching methods, such as 'interactive teaching' and 'active problem solving' (MoEVT, 2010a, p. 15). The Tanzanian Institute of Education has considered what teaching skills student teachers should be equipped with through teacher training (MoEVT, 2013a, 2013b). The Tanzanian government is nevertheless silent as to how teacher training may affect *pupils* or what support *schools* should provide to maximise training. There exists a tendency to reduce 'pedagogy' to mere pedagogical *acts* exclusive of pedagogical *ideas* at both the international and national levels.

Conclusion

The transversal and vertical inquiries across time and space have explored that the sociocultural milieu Tanzania has cultivated in relation to LCP. Espousal of 'democratic' and cooperative education by the Nyerere government started

decades before international donors brought LCP into the country. Yet the implementation of ESR was revealed to have been unsuccessful due to a lack of understanding among policy actors (i.e. teachers and pupils) and because of an institutional culture inconsistent with ESR ideals. Global organisations nonetheless soon introduced similar educational concepts, which Tanzanian national policies have recently adopted. What happens when such policies meet local teachers and pupils at schools? How do local actors understand LCP and appropriate it? The transversal, vertical and horizontal analysis of local schools in the subsequent three chapters seeks to address these enquiries.

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5 Teachers and the Act of Teaching

Chapter 2 introduced a comprehensive definition of pedagogy as 'the observable act of teaching together with its attendant discourse of educational theories, values, evidence and justifications' (Alexander, 2008, p. 29). In this chapter, I focus on one of the complementing constituents of pedagogy, *the observable act of teaching*, and its actors, *teachers*. Sitting in the innermost layer of the conceptual framework (Figure 2.1), these two elements of pedagogy have been a primary focus of the existing literature. Research conducted on the implementation of learner-centred pedagogy (LCP) in low-income nations has predominantly observed teachers' lesson activities, examined their beliefs and understanding of LCP and evaluated the effectiveness of teacher training. This is regardless of the fact that *students* and *learning* equally compose an integral part of pedagogy in the classroom. In this chapter, I present findings on how teachers think about LCP and how they act in the classroom, obtained mainly from semi-structured interviews with teachers and unstructured and structured classroom observations. I add transversal and vertical analysis to the observed phenomenon to embed my findings within the historical and epistemological contexts unique to Tanzania.

Links Between Epistemology and Pedagogy

To provide an epistemological context to the empirical data in this chapter, it may be useful to review the two contrasting views of knowledge introduced in Chapter 2. Constructivism rejects fixed knowledge, instead considering knowledge as fluid and constructed (Crotty, 1998; Patton, 2015). Absolute truth does not exist, and individuals build up their knowledge through cultural and social interactions. Rationalism, in contrast, considers knowledge to exist independent of the knower (Davis et al., 1993). Reality is 'out there' regardless of how humans perceive it. These two epistemological perspectives legitimise a certain kind of pedagogy, with constructivism leading to LCP-related approaches and rationalism leading to teacher-centred approaches. Constructivist epistemology argues that each learner constructs knowledge uniquely, which justifies individualising learning processes for each learner (Darling, 1994; Rousseau, 2007). Because teachers are not 'knowledge possessors', LCP also encourages equal, democratic relations between teachers and learners (Biesta, 2006; Dewey, 1916).

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In collaboration with teachers and other peers, LCP recommends activity-based learning – such as discussion, hands-on experience and presentations – over mere sitting and listening to a teacher's explanations (Ginnis, 2002; Schweisfurth, 2013). On the other hand, the rationalist view of knowledge offers an epistemological and theoretical grounding for didactic, teacher-centred modes of education. Learning in this paradigm becomes a process of discovering an already existing reality (Kelly, 2009). Because absolute knowledge exists as the truth, the purpose of education is to equip the learner with the right knowledge, such that learning activities become answer-centred (Tabulawa, 2013). It also produces unequal power relations between teachers and learners. Teachers as the source of knowledge obtain authority, and learners become passive receivers of ready-made knowledge. Hence, the quality of education within rationalist epistemology is determined by how well students recall the transmitted knowledge.

Tabulawa (2013) insists that making a 'paradigm shift' from one epistemology to the other is almost impossible: 'The disintegration of the dominant paradigm represents a disintegration of the practitioners' taken-for-granted world and a concomitant loss of psychological support' (p. 47). Here, he suggests that epistemology and its accompanying pedagogy are implanted within a cultural and social realm, and that they are historically succeeded over time. Bearing in mind these two sets of epistemologies and their accompanying pedagogies, this chapter presents the results regarding *teachers* and *the act of teaching*. By attending to teachers' understandings of LCP gained from the interviews and their acts of teaching observed in the classrooms, the analysis unveils the underlying epistemology the teachers may have to adhere to in order to apply a certain kind of pedagogy.

Teachers' Understandings of the *Observable Act* of LCP

The vertical investigation of LCP transfer in the previous chapter revealed a policy emphasis on *observable* LCP practices. International and national policymakers tendentiously regard LCP as identical to a mere teaching method, exclusive of cultural, social, political and system-level factors that would affect the forming of appropriate pedagogy (Figure 2.1). Such a view of LCP as a recommended observable method seemed to reach primary teachers as local actors in Tanzania. When asked about their understandings of LCP in the semi-structured interviews, every participant teacher except for Rashid at a private school in Islamia had heard of LCP-related terms including learner-centred pedagogy (*ufundishaji unaozingatia mwanafunzi*), child-centred pedagogy (*ufundishaji unaozingatia mtoto*), participatory method (*ufundishaji shirikishi*) and/or synonyms of these. The teachers learned these terms in pre-service or in-service teacher training or during daily conversations with their colleagues.

One LCP feature highlighted by the teachers, both frequently and saliently, involved learners' participation in teaching and learning processes. Eight out of 17 interviewees explained the term(s) using words like 'participation', 'involvement' and 'activity'. They elaborated on what they meant by these words with

specific examples of ways to involve their pupils in classroom activities. Teacher Abdu at the rural public Kisutu School offered details as follows:

> Participatory method is when you . . . let me give you an example. When I'm in a class, I teach a certain subject. . . . I ask them questions, and they answer the questions. Or when I'm at the blackboard, I can call one pupil to come to the blackboard. For instance, when I teach mathematics, I can use one pupil to calculate on the blackboard. Instead of me calculating, the pupils are going to calculate.
>
> (Interview with Abdu, 3 November 2015)

For Abdu, involving pupils in teaching and learning meant giving them tasks that they could actually do, such as questions and answers (Q&A), pupil demonstrations or pupil–pupil teaching. In a similar fashion, Aisha at the Amani urban public school explained her understanding of LCP:

> [In a] participatory method, I can consider pupils to participate in learning, like question and answer. Or I can give them questions [or] individual tasks in groups. The groups can do the task. After I show examples on the blackboard, I can give them the questions. And then, they participate to answer the question.
>
> (Interview with Aisha, 12 October 2015)

Thus, according to these teachers, pupils actively participating in tasks are a key to LCP. Learner-centred classes place students at the core of, and enhance their involvement in, learning processes. Barrett (2007) points out that the word 'participation' (*ushirikishaji*) has become a buzzword in Tanzania, implying that its use is fashionable without careful consideration of its underlying meaning. Although the interviewed teachers in Barrett's research attached the term 'participation' overwhelmingly to Q&A, the teachers in this study cited a variety of activities, from discussion and group work to peer teaching and Q&A. The different results obtained in Barrett's and this research might have derived from the ways in which questions were asked; the former enquired what the teachers considered 'good practice', whereas I asked the teachers about their understandings of LCP.

On the other hand, what is perhaps common in both studies is teachers' focus on *observable activities*. The teachers in this research explained the importance of pupils diligently engaging in observed tasks and activities. They considered Q&A, pupil demonstration, group discussion and pupil–pupil teaching as 'learner-centred'. The emphasis placed on these activities by the teachers can imply that LCP does not mean merely sitting and listening, or the use of ' "lecture" methods' in Barrett's terms (2007, p. 285). This aligns well with Rousseau's focus on letting children experience things for themselves and encouraging children's movement around the learning space (Darling, 1994). Ginnis (2002) and Schweisfurth (2013) also identify the active roles learners play in teaching and learning processes as features of LCP.

Missing from teachers' descriptions, however, were the theories and principles underpinning LCP's observable practices. They articulated what LCP looks like but rarely touched on the meanings and concepts underlying LCP-related activities. The absence of LCP concepts from teachers' understandings may present a similarity with LCP policy discourse which also focuses on observed teaching acts. The vertical analysis in Chapter 4 demonstrated that policy diffusion of LCP emphasises observable teaching practices. International LCP policies – including Education for All (EFA), Child-friendly schools (CFS), Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) – equate LCP with teaching techniques such as 'participatory method' and 'active and collaborative approaches'. They do not substantiate the import of these practices with the accompanying theories and concepts. The teachers who participated in Barrett's and this research seemed to acknowledge the global LCP discourse at the language level, using the terms with respect to specific classroom practices but without referring to LCP tenets. The fact that teachers prioritised concerns with activities prompts a query: *Did they employ discussions, Q&A, group work and pupil presentations in their classrooms?* The next section on classroom observation analysis will unpack this question.

Observed Pedagogical Approaches

The teachers spoke about observable LCP in line with international policy documents, but learner-centredness has not come about as an observable act of teaching in the manner intended by aid agencies. Data from structured observations show the dominance of teacher-centred activities in a collective average of the 17 lessons. Tasks related to teacher-centred pedagogy (TCP) (watching/listening, taking notes, reading aloud, written exercise and teacher-initiated Q&A) accounted for 81% of the lesson time, whereas the teachers spent 14% on learner-centred activities (individualised activity, group work, pupil demonstration and learner-initiated Q&A). Off-task activities (teacher management, transition and pupil uninvolved) took up 5% of lesson time. Table 5.1 shows a breakdown of mean percentage of time applied to specific activities. The full lesson time used by the teachers totalled 11 hours 28 minutes and 17 seconds, ranging from 13:28 by Mosi in Siha (rural public) to 1:05:31 by Rajabu in St. John (private). As Barrett (2007) remarks, teachers in Tanzania tend not to adhere strictly to the timetable. In this study, this dynamic was more evident in public schools than in private schools. Some teachers finished their lessons earlier than the bell rings, while others took significantly longer than their allotted timeframe of 40 minutes.

Table 5.1 indicates that the pupils were predominantly involved in lecture-driven activities based on watching and listening to teachers (40%) or responding to teacher-initiated questions (15%). Many classes also included writing exercises (21%) as a way to test pupils' understanding at the end of the lesson. This took up more than half of the lesson time in some classes, as detailed later. The prevalence of TCP-associated activities corresponds to previous quantitative findings

Table 5.1 Percentage of lesson time by activity

Large categories	*Small categories*	*Mean (%)*	*SD*	*Min (%)*	*Max (%)*
TCP-related	Watching/listening	40	0.23	2	82
	Taking notes	4	0.06	0	18
	Reading aloud	2	0.05	0	15
	Written exercise	21	0.22	0	69
	Teacher-initiated Q&A	15	0.11	0	41
	TOTAL	**81**	**0.15**	**51**	**100**
LCP-related	Individualised activity	0	0.00	0	0
	Group work	4	0.07	0	20
	Pupil demonstration	10	0.11	0	26
	Learner-initiated Q&A	0	0.01	0	4
	TOTAL	**14**	**0.14**	**0**	**44**
Off-task	Teacher management	1	0.02	0	8
	Transition	3	0.03	0	8
	Pupil uninvolved	1	0.02	0	4
	TOTAL	**5**	**0.05**	**0**	**16**

in other sub-Saharan African countries. Frost and Little (2014) found 75% of TCP-related, 11% of LCP-related and 15% of off-task activities in Ethiopia. Likewise, Ackers and Hardman (2001) recorded a predominance of teacher-directed instruction in Kenyan primary schools.

In the following, I provide narrative portraits of two lessons. Each of the 17 individual cases exhibited similar and distinctive features in relation to LCP. The two lessons were chosen here to illustrate the prevalence of TCP-related activities even in two very different settings: one from a rural public school that suffered from a severe shortage of facilities and teaching aids, and the other from a private school with newly built classrooms and an abundance of materials. The two case stories are not meant to generalise their teaching and learning processes to all the observed schools but to illustrate similar and dissimilar pedagogical features in relation to LCP tenets, and portraits of all schools are included in Boxes. The stories draw mostly upon qualitative data from unstructured lesson observations and field notes, but I also knit these together with quantitative information from the head teacher questionnaire. They present school characteristics – their surroundings, their history and my impression of school conditions – and the pedagogical approaches that the two teachers adopted in their lessons.

School Case 1: Siha School (Rural Public)

Only a privately hired motorcycle could take me to Siha School in Kigoma, as there was no public transport to the school. One could go right past the school signboard made from a stone, because the paint had mostly come off so it looked like a bare stone. The school had several unpruned trees here and there, and weeds were taking over a sloped playground out of the nine facilities enquired about (including piped water, electricity, library, science laboratory, staff room,

playground, school garden, telephone and photocopier). The classrooms were made of concrete, but their paint had peeled off. Open windows and doors let air into the rooms. The head teacher indicated in the questionnaire that the school had only piped water and a playground. However, next to its school building was a brand-new nursery school built by a donor agency.

A Swedish missionary opened Siha as a Sunday School in 1952. Only a few years later, nationalisation by the colonial government occurred, in which the school maintained non-denominational religious approach. At the time of my research, approximately 95% of the more than 600 pupils had a Muslim background, and the majority came from farming families. Around 25 teachers looked after these pupils. According to the head teacher, the female teachers tended to be absent and the male teachers had to cover their duties from time to time. A little less than one-third of Siha graduates had transitioned to secondary school for the past three years leading up to my visit.

Mosi's English Class

Teacher Mosi's English class was packed with nearly 90 pupils. They shared 24 desks and chairs with up to five peers squeezed together, except for three girls who sat on the floor in front of the chalkboard. No electricity was used, but the sun lit the classroom. The lesson on relative pronouns started without greetings. Mosi first copied phrases and sentences from his textbook on the board. Yet the quality of chalk was so poor that what he wrote was barely readable. In introducing the lesson topic, Mosi prompted the pupils to repeat. He then went on to explain how to construct a sentence using the relative pronoun 'who'. None of the pupils had a textbook. The teacher copied two examples from the teacher's book. He read aloud while writing, throughout which he faced the blackboard.

After a brief introduction of the relative pronoun came a whole-class exercise. In the same way as with the introduction, Mosi wrote down the questions on the board and read them out. The pupils watched and listened to him. Yet many pupils neither paid attention to Mosi nor seemed to understand the teacher's explanation in English. Some lay down on the desks, and others looked outside. In the middle of the exercise preparation, the teacher needed a duster but could not find any in the classroom. A girl stood up and went out to find one.

Mosi finished drawing a table with one column containing different types of occupation and another containing their descriptions. He then asked the class to choose phrases from each column. The pupils were expected to make a meaningful sentence by connecting two phrases with the relative pronoun 'who'. Mosi first read aloud the description, such as 'Someone who prepares food in a restaurant or hotel is called?' This was followed by a pupil choosing the relevant occupation from another column. The class was rather quiet. Only a few of the same pupils raised their hands. To those who answered correctly, Mosi uttered 'good' and repeated the whole sentence. When the pupils got an answer wrong, the teacher told them 'no thank you', and called on another pupil. After repeating such interactions eight times, Mosi finished his short lesson in a little more than 13 minutes.

School Case 2: Kawe School (Private)

Located in a rural ward of the Dar es Salaam region, I needed to take a minibus running along a rough road towards a hill to reach Kawe School. Along the road were houses of different kinds. Some were magnificent, but others were constructed from mud. A security man stood in front of a metal gate. I explained the reason for my visit, and he easily let Manyama (the research assistant) and me enter the school. Six school buses stood to the left of the entrance. Classrooms were built into a U-shape, with concrete covering the ground in front of them. Along with the newly built classrooms, the school was equipped with all facilities asked about in the head teacher questionnaire and held more than 30 computers. To fully utilise the abundant teaching materials, the head teacher said that the school had been trying to attract more pupils.

Built by a businessman owner of a large enterprise in Tanzania, Kawe School had very recently opened and provided private education from pre-primary to secondary levels. Due to the brief tenure of the school, it had not yet produced any graduates at the time of my visit. The parents could choose whether to put their children in its boarding school or day school. In total, Kawe had nearly 550 pupils taught by 27 teachers.

Zakia's English Class

In his late 20s, Zakia had taught for four years after university. Zakia's English class on gender-related vocabulary had 38 pupils seated on individual chairs. The well-painted wall in white and cream had some teaching material related to the subject of English and a timetable.

Zakia began his class by asking the pupils for the definition of 'gender'. A girl sitting in the front row confidently answered, 'The state of being a male or a female'. After restating her answer, Zakia described how to refer to the two genders, followed by pupils' repetition:

ZAKIA: The males, we call them the masculines. We call them what?
ALL PUPILS: The masculines.
ZAKIA: When I'm talking about the males, we also call them masculines. We call them?
ALL PUPILS: Masculines.
ZAKIA: What about the females?
ALL PUPILS: Feminine.
ZAKIA: How do we call them?
ALL PUPILS: Feminine.

After this exchange came the presentation and definition of a variety of gender-specific vocabulary terms. For instance, Zakia introduced the word 'husband', prompting the class to answer and define the opposite term. A chosen pupil would say 'wife' and gave definitions of either or both 'husband' and/or 'wife'.

A similar pattern of interactions took place dozens of times for 30 minutes, dealing with human-related vocabularies like widower and widow and animal-related ones such as buck and doe.

Throughout the lesson, Zakia retained a very authoritarian figure. When few hands were raised, he shouted, 'You raise up your hand! There are some people here who are sleeping. They don't know anything'. Similarly, when the voice of the whole class was low during cued elicitation, the teacher ordered the pupils in a loud, somewhat angry voice to repeat what he said. At another time when a girl tried to respond to Zakia's question to define the term 'a waiter', Zakia called to her, 'Can you stand up and give us a correct answer? Stand up!' Towards the end of the class, Zakia invited pupils to come up with pairs of gender-specific words not covered by the lesson. Seven pupils responded and the teacher finished the lesson rather abruptly.

Reflections on Two Lessons

Both teachers recorded few LCP-related activities during the class, albeit for seemingly different reasons. Mosi's class had the most severe classroom environment among other observed classes, which limited what the teacher could do in his lesson. It was obvious that his classroom lacked very basic materials, from desks and chairs to proper chalk and a duster. Although the classroom accommodated a moderate number of pupils compared to other schools, the shortage of desks and chairs forced them to sit squeezed together. A few pupils even sat on the ground. It was visibly impossible to move the connected desks to form groups. The pupils whose minds were clearly unfocused would become more distracted if that happened, as they already looked disengaged from the lesson. Moreover, Mosi seemed to lack teaching skills in general and not to be trained adequately in LCP. He mostly spoke towards the chalkboard. Although the lesson topic was on the relative pronoun, the pupils only answered one or two words about occupations without using the target grammar. Hence, the material shortage and the capacity of the teacher seemed to hamper LCP appropriation at the Siha School.

In contrast, Kawe benefitted from relatively adequate facilities and teaching aids, but these did not prompt Zakia to practise LCP-associated tasks. The pupils watched and listened to him for more than 60% of the lesson time. The teacher-led Q&A was the most common form of pupil–teacher communication, followed by cued elicitation. In calling upon individual pupils, Zakia shouted at them to stand straight and not to 'sleep'. Although the pupils did not seem to be frightened by Zakia's shouting, his authoritarian figure was evident throughout the lesson. The pupils did not appear to be willing to initiate their learning but passively followed the teacher's direction.

In summary, the data from classroom observations suggested little *observed* implementation of LCP-related practices. The 17 teachers on average predominantly applied lecture-driven, teacher-led styles of teaching. Having demonstrated how teachers utilised TCP-related activities – including watching/listening,

taking notes, reading aloud, written exercises and teacher-initiated Q&A – I now shift the focus to another category in Table 5.1, LCP-associated activities.

Absence of Individualised Activities

The founder of child-centred pedagogy, Rousseau (2007), appreciated the unique characteristics and different developmental stages of each child. This notion led him to endorse the idea that education be individualised to cater to their varied interests and abilities. In schools which took part in this study, Rousseau's notion of individualised teaching and learning attracted far less attention from teachers in their interviews, compared to their frequent reference to pupil participation and activities. Even so, a few did show their understanding of LCP in this respect. Moyo at the rural public Green School and Aisha at the urban public Amani School cited individualised learning as an example of LCP while briefly explaining it:

> We teach students based on how he or she is. We teach them according to who they are. Here we have slow learners, those who don't know how to read from Standard 1 up to Standard 7. So, we teach them mathematics and other subjects, but we also teach them how to read and write.
>
> (Interview with Moyo, 19 October 2015)

> I know some of my pupils have some problems. If he or she is a slow learner, I take more time to introduce topics to him or her. I try to know everyone who has problems, like he has a hearing problem or eyesight problem, or he is a slow learner. I take more time to support him or her. . . . In this class, there are [pupils with] different ages. One can start Standard 1 at an older or younger age, like Standard 1 with seven years or six years or five years. Others, eight years. So if they are different ages, you can consider who is younger and who is older.
>
> (Interview with Aisha, 12 October 2015)

Both Moyo and Aisha noted the need to adapt teaching and learning to each child, attending to their different academic abilities, with specific references made to those who were 'slow learners', those who had disabilities and those who were younger. According to the two teachers, LCP is meant to adjust the teaching method to the diversity that pupils bring to the classroom.

Table 5.1 nonetheless shows no individualised activity observed in any lessons. All pupils undertook the same activity in the same place, at one point in time and at the same pace. When some pupils worked at a different speed, they were made to adjust their pace. Writing exercises, which accounted for an average 21% of the 17 lessons, epitomise this characteristic. In Malika's 50-minute lesson on fractional equations at the rural public school in Baraka, she spent more than 30 minutes on pupils' solving five questions on the board. The class became perfectly silent. Malika went around the room to mark their work one by one, which took

a long time. Learners who completed the problems early had to wait silently until everyone else finish. Classes by Aisha and Nyo involved similar instances. Some pupils waited with nothing to do for more than half of the lesson. Thus, the pupils in this study rarely engaged in classroom tasks in the way Rousseau (2007) proposed, with learning being based on an individual's abilities, interests or experiences.

Moyo and Aisha, who recognised individual variation as one feature of LCP, explained why individualised tasks would not occur in their day-to-day lessons. Both teachers expressed the difficulty of adjusting activities according to the abilities and differences of each pupil. Large class size, especially with over 150 pupils in Moyo's class, and time limitation hindered their execution of individualised activities. The interview accounts from Moyo and Aisha regarding situational constraints may provide one possible reason for limiting LCP implementation, which is further analysed in Chapter 6.

Here, the transversal axis developed in Chapter 4 attempts to explain the non-presence of individualised learning from a historical perspective. The purpose of education in Tanzania's indigenous era involved passing on customs and values from the knowledge possessor to the recipient (Cameron & Dodd, 1970). Its process demanded that every member of society acquires predetermined knowledge. Learning always took place cooperatively between masters and peers (Furley & Watson, 1978). By critiquing the colonial education model which advocated competition between individuals, Nyerere also discouraged independent learning but stressed collaboration with fellow students and communities. The aim of this approach was to achieve Education for Self-Reliance (ESR) to produce farmers who would cultivate and harvest agricultural products cooperatively (Nyerere, 1967). Self-reliant activities were meant to enhance pupil awareness as members of society. Such a historical tracking would signal that, over the course of Tanzania's educational development, neither indigenous education nor Nyerere's ESR appreciated individualised activity. Collective learning, where learners acquire the same knowledge and customs in the same manner, seems more important than the uniqueness of learners or their independent learning. The complete omission of individualised activity during the lesson observation in this study, and fewer teacher narratives focused on this within the interviews, might reflect a continued absence of such activities throughout Tanzania's educational history. The present teachers and pupils were engaged in the same task at the same time and at the same speed, not allowing for individuals to undertake their own learning.

Employing Undemocratic Pedagogy

Another dimension that manifested the lack of observed learner-centredness in the classroom entailed a democratic aspect, one of the key features of LCP urged by Dewey. His progressive education stresses equal student–teacher relationships and learner involvement in curriculum development (Dewey, 1916). Dewey ran a school that let children design their own curricula and fostered democracy in the school community, albeit without scientific justification. Nyerere followed

Dewey's direction; ESR (Nyerere, 1967) foregrounds democracy and states that curriculum relevance should be realised in school. Decision-making with respect to school governance and free discussions between students and teachers were encouraged (Nyerere, 2004). The official curricula were meant to leave room for students and teachers to jointly construct and adjust to local needs. Nyerere believed, in line with Dewey, that democratic schooling would foster future democratic citizens.

However, Nyerere's educational values were not carried through by teachers currently working in schools. As presented in the previous chapter, when asked about their knowledge and understanding of Nyerere in the interviews, the teachers focused on Nyerere's contribution to the political and social realm, paying little attention to his educational legacy. None of the 17 teachers touched on Nyerere's pedagogical principles, let alone his ideals of democratic pupil–teacher relationships or flexible curricula.

Observation data from their lessons corroborate the interview narratives, which lacked a democratic perspective as learner-centred. The teachers tended to maintain an authoritarian manner throughout their lesson time. Zakia at Kawe School, introduced earlier, often used shouting to control the classroom climate. Teacher Rajabu at the private St. John School in Kigoma also maintained a somewhat humiliating manner in his lesson. When pupils were engaged in a writing exercise, he walked around the classroom to check how they were doing. Rajabu spotted a wrong tense that a male pupil had written in his exercise book, uttering to him, 'It seems you don't . . . you don't learn, is it? . . . You don't study. The family leave. It scares [me]'. To a female pupil who made a grammatical mistake in writing 'there was going', Rajabu asked, 'Is that English?' Rajabu maintained a coercive manner throughout his lesson, which appeared to frighten the pupils. In another lesson at Umoja (an urban public school), teacher Nyo brought a stick when pacing in the classroom to check pupils' writing exercises. When he reached a male pupil who was not writing properly at one point, Nyo beat the pupil's back three times. The teacher then added three problems to the board for the class to solve and walked around the room to mark their answers. He beat the backs of several pupils who made a noise, who made mistakes in the exercise, and who did not follow his order to collect the assignment. A few pupils screamed, but Nyo did not desist from beating them.

Tabulawa (2013) calls such classroom interactions 'teaching by surveillance' (p. 57). Citing interview accounts from teachers in Botswana, the author convincingly illustrates how the teachers felt safe and stable when in control of the classroom climate and student attitudes. In my study, Zakia conformed to Tabulawa's example during his interview. The teacher described his ideal lesson, which he defined as 'pupil-centred':

> I think pupil-centred is whereby the teacher normally is very keen whether *he*[1] *'s delivering the contents.* He has to oversee all pupils to ensure what he's delivering. Everyone is able to hear what he is speaking, what he is doing. And pupils are not doing anything apart from listening what the teacher is speaking.
>
> (Interview with Zakia, 29 October 2015, emphasis added)

A high-quality teacher, according to Zakia, would ensure that pupils listen to what the teacher tells them. The teacher is the one who is 'delivering the contents'. The phrase used by Zakia implicitly indicates that he held a certain assumption about the nature of knowledge. Knowledge is situated in teachers' heads to be passed on to the pupils. To establish the one-way transmission of the contents, teachers need to patrol the class to make all pupils alert. Zakia tried to accomplish this classroom state by shouting and accusing sleepy-looking pupils. In Zakia's lesson, pupils were 'centred' when they received the knowledge delivered by means of teacher surveillance.

Perhaps, a salient manifestation of the unequal relationship between teachers and pupils was the seating arrangements in the classrooms. All but one (Aisha's) class had their pupils sit in rows while facing the teacher standing in front. All public schools used long benches and rectangular desks which two to five pupils shared. These facilities would not be suitable for forming groups or for pupils moving around according to their interests. Such classroom arrangements and facilities seemed to be made for pupils to gaze at their teachers, as this setup would efficiently pass the teacher's knowledge to the pupils. Thus, the way classrooms were arranged may have reflected, or intensified, undemocratic relationships between teachers as knowledge possessors and pupils as knowledge recipients. Discussion of the epistemological implications for classroom practices in contemporary Tanzania will continue later in this chapter.

Adopting Observable LCP Activities

The complete lack of individual activities and teachers' authoritarian manner represent a scarcity of learner-centredness in the classroom, but LCP-associated practices did take place in some lessons. As shown in Table 5.1, two common LCP-related activities entailed pupil demonstration (10%) and group work (4%). Teachers at urban public schools – Amani, Mwenge, Umoja, Kwanza and Bunge – notably employed these tasks compared to their counterparts at rural public and private schools.

Nevertheless, when using LCP-associated activities, many teachers seemed to apply surface features of observable teaching techniques but without engaging with LCP principles. At Amani School, Juma taught close to 50 pupils English phrases like 'so . . . that . . .', 'too . . . to . . .', and 'enough . . . to . . .'. In the middle of the lesson, Juma instructed the pupils to organise themselves into small groups. They were expected to form one sentence from two using the phrases 'so . . . that . . .' or 'too . . . to'. For instance, Juma wrote two short sentences: 'Asha is very young' and 'She cannot walk alone'. The task was to produce one sentence using the designated phrases, 'Asha is too young to walk alone'. By repeating 'Class, quiet, quiet', Juma commanded the pupils to *silently* read the sentences on the blackboard. It was apparent that the pupils who had formed groups were confused about when and how to discuss. While the teacher was writing several sentences on the board, some pupils took notes whereas others were barely engaged with any task. Few verbal exchanges occurred. Soon after finishing writing down

four sentences, Juma asked one group to answer the first question, assuming that they had discussed to prepare their answer. The group was not ready. The teacher looked a little embarrassed but moved to another group to seek their response. A female pupil gave a correct answer, but she presented on her own behalf and not for her group.

Juma's colleague at Amani School, Aisha, had a similar command of her pupils. Aisha told them to solve maths problems in groups, while strongly admonishing them not to speak loudly. Phrases like 'shut up!' and 'hurry up!' were commonly used. This meant that the pupils whispered during the group work. For both Juma and Aisha, the teachers ostensibly employed one observable act associated with LCP, 'group work'. However, few exchanges of ideas occurred. Being in a group thus meant little for the pupils. It can be said that the teachers applied some *observable* labels of LCP without engaging with its substance. Mtika and Gates (2010) also came across such an instance in Malawi. Their observation notes state:

> The student teacher sends pupils into groups. He continues to deal with individual pupils even though they are in groups. The groups do not seem to be for a particular purpose because they are not given activities to do. The instructions are not given to pupils apart from that of going in groups.
>
> (p. 400)

The purpose of the student teacher appeared to be just to organise pupils into groups. So long as groups were formed, his objective was achieved. It seemed not to matter to the student teacher how and what kind of learning took place in the groups. This observation led Mtika and Gates to conclude that the student teacher applied only surface characteristics of LCP unaccompanied by its tenets.

Not all group work was silent, however. At another urban public school in Mwenge, noisy discussions took place in Chane's mathematics class. The teacher spent the second longest time on LCP-related activities of all the teachers, with 11% of class time allotted to group work. After 20 minutes of Q&A on coordinate geometry, the teacher arranged 80 pupils into small groups. He wrote on the blackboard seven sets of X and Y, like '(4, 2)', and told the pupils to draw a coordinate on their notebook and put the dots on the coordinate. The class got noisy, with Chane's repeated encouragement of 'discuss in your group' and 'discuss and do the exercise'. The pupils got closer to each other physically to hear what others said, and actually interacted to find the dots on one person's notebook. Chane circulated the room and checked their work group by group. He sometimes gave suggestions about how to solve the problems, such as 'Make sure that when you read coordinate geometry, you should always start with which axis'. The class seemed accustomed to working with groups and presenting their work in front of others.

This vignette might illustrate two features of LCP discussed in Chapter 2: active roles played by learners and collaborations and interactions. Unlike the lessons by Juma and Aisha, the pupils in Chane's class actively took part in discussion and

interacted with one another to produce answers. This could be a manifestation of Vygotsky's (1978, 1986) social constructivist notion that learning happens through others, where peer-to-peer and pupil-to-teacher interactions are crucial. Chane's interview account of how he understood LCP corresponded to these concepts proposed by early LCP theorists. Chane viewed LCP as taking place where:

> [S]tudents are the main participants . . . and the teacher can only be like a facilitator. . . . [S]tudents are collaborating together. They are sitting together in groups. They can discuss and then present what they have discussed.
>
> (Interview with Chane, 22 October 2015)

Comparing the aforementioned interview reports and Chane's classroom practices, how the teacher acted was consistent with his description of LCP. In fact, Chane was one of the few teachers whose lesson activities matched their understandings of LCP, as captured in semi-structured interviews, because most teachers' understanding of LCP was not actualised in their lessons.

Nonetheless, the methodological triangulation of observing lesson activities and analysing classroom interactions may pose a question as to whether Chane internalised LCP principles with learner-centred beliefs and with the constructivist view of knowledge. After a little more than ten minutes of small-group discussion, group presentation – another LCP-associated *observable* activity – followed. One representative selected from five groups demonstrated their work while the rest of the class listened. The following interaction sets out an example presentation. Using a wooden stick, a female presenter indicated points A to G on the coordinate geometry drawn on the front board:

GIRL: A, we have got positive four.
CHANE: Where do you get positive four? Where do you get positive four? At which axis?
GIRL: X.
CHANE: Okay, X axis. Is it right?
GIRL: Y is positive two.
CHANE: Is she right or wrong?
ALL PUPILS: She is right.
CHANE: Okay, proceed.
GIRL: B . . . B, we get positive two at X axis, and we've got negative four at Y.

After each presentation, Chane asked the class, 'Is she right or wrong?' The whole class responded with 'yes' and congratulated the presenter with chanting. Because all groups solved the same questions to find points A to G on their coordinates during the group work activity, all presenters repeated the same answers. Towards the end of the lesson, the non-presenting pupils seemed to be bored of the repetitive activity, with hearing the same answers and congratulating the presenters.

The aforementioned series of interactions may exhibit a certain epistemological assumption Chane seemed to hold. What the teacher demanded of the pupils was reproduction of acquired knowledge. The pupils presented only the answer itself; they did not explain the processes for solving problems or the underlying relationships, which constructivist teaching and learning encourage. The pupils became what Tabulawa (2013) calls 'answer producers, not thinkers' (p. 53). Checking how well pupils recall the right answer corresponds to a teacher-centred practice epistemologically underpinned by rationalism. Detached from human conception, rationalism perceives fixed reality as existing independent of the knower (Davis et al., 1993; Kelly, 2009). In a classroom context, learners are constantly searching for the one right answer that the teacher passes on. Even if Chane used an *observable* LCP-related activity of pupil demonstration, the purpose of the activity appeared to be based on the rationalist epistemology. Another quote from his interview suggests his emphasis on the observable practices. I asked whether executing LCP was easy or difficult for him:

> It's easy. Easy. It is just organising students. They can sit in groups, and then I can distribute them questions they can try in groups. I will then mark their answers.
>
> (Interview with Chane, 23 October 2015)

I pointed out earlier that many interviewed teachers seemingly understood what LCP is with respect to observable LCP-related acts. Chane's narrative implies that, for him, implementing LCP meant the same as using LCP-related activities. This reflects, again, that the focus of LCP policy discourse on *observable practices* is vertically transferred from international and national levels to the local. Teachers adopted policy discourse only linguistically. Even for those who practised LCP-related activities in the classroom, their practices seem to be unaccompanied by LCP concepts. The root source of why they may not have internalised LCP beyond its related activities appears to lie in their epistemological viewpoint being distinctive from constructivism. To expand on the teachers' conceptual and epistemological bases for their teaching and learning practices, I now move on to an analysis of classroom interactions. The ways teachers and pupils communicated appear to embody the view of knowledge embedded in Tanzanian society historically.

Box 1 Baraka School (Rural Public)

Baraka School in Kigoma had a vast compound shared by primary and secondary schools. Some classrooms were partially abandoned without roofs or floors, and no facility but piped water was available. The school nonetheless looked clean and tidy. A head teacher over 50 years old greeted me

and took me to his office, which contained a wooden desk for the head, a wooden table and an old sofa. Document files were put in order on a shelf, and the surface of the table was well cleaned. The school appearance gave the impression that discipline was maintained under harsh conditions.

Baraka started as a Swedish missionary school but was nationalised soon after independence. Now, it has an approximately equal number of Christian and Muslim children, with nearly 700 in total, taught by a little more than 20 teachers. Baraka observed the lowest transition rate of all the schools at less than 5%.

Malika's Mathematics Class

The maths teacher Malika was another female teacher who participated in the research. In her late 20s, it had been four years since Malika started her teaching career. The class contained close to 40 pupils, with ten more female than male pupils. Twenty-four sets of desks and chairs were more than enough for the relatively small class size in a public school. Six sets were left empty. The earthy coloured wall made from mud reflected the sunshine and lit up the classroom with its high ceiling.

In about 50 minutes of the lesson on how to calculate fractional equations, Malika retained her authority. The class began with pupils copying an example of a linear equation from the blackboard, during which the class fell completely silent. Malika then directed them as to how to solve the maths problem using whole-class and individual Q&As. She kept the tempo fast and the pupils followed her promptly. At one point, a male pupil came to the front and demonstrated how to solve the equation, in a manner very similar to Malika:

BOY 1: You write twelve *F* plus three. It is equal to twenty-seven. You take twelve *F*. It is equal to . . . this three here, which is added, will come to this side. Then it is subtracted. Do you understand?

ALL PUPILS: Yes.

BOY 1: It will be twenty-seven minus three. Twenty-seven minus three? Asha.

GIRL 1: Twenty-four.

BOY 1: Therefore, it will be, twelve *F* is equal to twenty-four. We divide it by twelve, we divide it by twelve. This one and this one is finished. Twenty-four divided by twelve? Godida.

BOY 2: Two.

BOY 1: Therefore, *F* is equal to two.

This was followed by a whole-class praise requested by Malika. The pupils rubbed their hands for a few seconds and clapped them twice.

The teacher then wrote five questions on the board for a writing exercise. The class became perfectly silent again, while the pupils seemed very focused on solving the problem. Malika went around the room to mark their work one by one, and taught pupils individually if they had incorrect answers. This writing exercise took more than 30 minutes out of her 50-minute lesson.

After Malika checked all the pupils' work, the class reviewed some of the questions. She asked the pupils which question they found difficult. When a few pupils raised question numbers, the teacher repeatedly spotted the incapability of the pupils, such that:

He is saying that question number three is difficult. Okay, one of you may come and calculate the question number three. Hurry up. Question number three. Question number three is difficult. He has got a wrong answer. This is a difficult question.

To respond to the teacher, two pupils consecutively came to the front and demonstrated how to solve the problems. They acted like a teacher, posing questions to the rest of the class in the same manner as Malika. To conclude the lesson, Malika asked the whole class whether they understood and enjoyed her lesson. All pupils raised their hands. Finally, Malika reminded the pupils to practise other algebra problems at home.

Classroom Interaction Patterns With Teacher Dominance

Results from classroom interaction analysis may be useful here to unpack the epistemological assumptions teachers may possess. Not only Chane at Mwenge but also other teachers in this research demonstrated a teacher-led style of interactions with their pupils. Table 5.2 presents the average percentage of interaction types for all 13 classes within the initiation–response–feedback (IRF) categories explained in Chapter 3. In a nutshell, the IRF categories suggest that an initiation prompted by teachers or pupils stimulates a certain response from either group, which may be followed by feedback. Each interaction type observed during the lessons was counted, and each total was divided by the total interaction counts in the same IRF categories.

Teacher-led initiation accounted for more than 95% of initiation moves compared to only 4% of pupil initiation. This implies the prevailing control of teachers over what and how classroom communications were carried out. The exchange detailed in the following, which took place in Malika's class, typifies the most common initiation move, teacher questioning (32%):

MALIKA: Then what do we put?
ALL PUPILS: Equal sign.
MALIKA: It's equal to how much?
ALL PUPILS: Eighteen.
MALIKA: Now, do we add or subtract three?
GIRL: We subtract.

Table 5.2 Pupil–teacher interactions by IRF categories

IRF categories	*Interaction types*	*Percentage (%)*
Initiation	Teacher question	32
	Teacher direct	16
	Teacher elicit	28
	Teacher check	20
	Pupil initiate	4
	TOTAL	**100.0**
Response	Individual response	32
	Whole-class response	68
	TOTAL	**100.0**
Feedback	Encouraging	23
	Neutral	69
	Discouraging	9
	TOTAL	**100.0**

Drawing upon aggregated data with respect to teacher questioning, the majority, or 69%, consisted of closed questions, requiring the pupils to recall facts as in the aforementioned example. It appears that Malika already had the 'correct' answers prior to her asking the questions. The pupil–teacher exchanges were a verification process of whether pupils could reproduce the exact answer Malika had in mind. Only one answer, and nothing else, could be uttered by all pupils. If pupils give the 'right' response, that proves a successful transference of absolute knowledge from teacher to learners; hence, the teacher's role as a transmitter-of-knowledge is achieved. Such a transmission process would exacerbate teacher authority as the reference point of knowledge.

Another initiation move observed in classroom interactions involved teacher elicitation (28%), where teachers prompted pupils to respond in the form of repetition or completion of a word or phrase. In the observed classes, rising intonation at the end of sentences elicited the pupils to respond mostly as a whole class. Teacher Rashid at the private Islamia School in Kigoma went through how to calculate improper fractions by means of Q&A. Simple repetition of his words dominated pupil–teacher interactions:

RASHID: So, in addition, we have . . . we said we have proper and improper what?
ALL PUPILS: Fraction.
RASHID: Proper fraction and improper what?
ALL PUPILS: Fractions.
RASHID: Fractions. Okay?
ALL PUPILS: Yes.
RASHID: So, we learn about proper what?
ALL PUPILS: Fraction.
RASHID: Fraction. I think we are given a number in improper what? Fraction. It's improper what?
ALL PUPILS: Fraction.

In this chunk of communication, the only word uttered by the pupils was 'fraction(s)'. From the outset of this exchange, the answer was given beforehand, and the pupils did not engage in any thinking but merely repeated the same word. The teacher seemingly expected the pupils to complete his sentence, and the pupils knew what to say and when. At another private school, Highland in Dar es Salaam, verbal exchanges between teacher Okapi and his pupils mostly comprised cued elicitation. The teacher obviously added stress and a raised intonation at the end, hinting to the pupils what to say to complete his sentence:

OKAPI: These types of angles are advised to go in?
ALL PUPILS: Order.
OKAPI: From the smallest to the?
ALL PUPILS: Biggest.
OKAPI: As somebody has said that the first angle can have . . .
ALL PUPILS: Straight.

As with Rashid, what Okapi wished his pupils to state was not an answer to a problem but general words such as 'order' and 'straight' in unison. Okapi sometimes gave the pupils a clue as to what should follow. He indicated the first part of answers, such as 'interse . . . ?' and 'or . . . ?' when he hoped to hear 'intersection' and 'order' from the pupils.

In parallel with closed questions, teacher elicitation also manifests the rationalist view of knowledge, or the belief that knowledge is detached from human observation or experience (Kelly, 2009). Reality is perceived as absolute and fixed, and to learn is to absorb and reproduce this fixed knowledge. According to Pontefract and Hardman (2005), teachers in sub-Saharan African nations commonly provoke repetition and completion of words and phrases by pupils. Wedin (2010) further claims that cued elicitation does not require learners to engage in critical or higher-order thinking. Such accounts are discordant with the policy ideals. UNESCO (2015) assumes that open-ended discussions and role playing should happen in a learner-centred classroom. Likewise, UNICEF (2009) endorses allowing children to experiment with their own ideas and to learn through self-discovery, which would bring about learners' 'joy of learning' (Chapter 6, p. 4). The findings from this research, in line with previous studies, show opposing results to these policy convictions. The pupils merely needed to repeat or utter obvious answers, hardly requiring them to discover or investigate unknown answers.

The discussion thus far has revealed the prevalence of TCP-related pupil–teacher interactions. Most interactions were initiated by teachers, but this teacher-led style of interactions was created *jointly* by both teachers and pupils. Chapter 2 argued that classroom reality is established not only by teachers but also by interactions between teachers and pupils (Fleming, 2015). The previous literature on the implementation of LCP in the global South has overlooked the nature of classroom interactions, scrutinising them mostly from the standpoint of teachers (Tabulawa, 2013). The exclusive focus on teaching practices implies

a supposition that teachers are the ones who determine and guide what and how lessons are conducted. However, in reality, pupils also participate in constructing classroom ambience.

Another initiation category of teacher checking (21%) in this study would typify interactions co-constructed by teachers and pupils. The observed teachers often surveyed pupil understanding by asking 'Do you understand?' and 'Are we together?' The pupil–teacher communication here was taken from a mathematics lesson led by Ikeno at the urban public Kwanza School. After appreciating one pupil's demonstration of the correct way of solving a mixed fraction, the teacher enquired of the whole class:

IKENO: Thank you [to the demonstrated pupil]. I think you understand, right?
ALL PUPILS: Yes.
IKENO: Is there anyone who has a question here?
ALL PUPILS: No.
IKENO: No one?
ALL PUPILS: Yes.
IKENO: Now, let us proceed to the other topic. (Lesson continued.)

Instead of genuinely ensuring pupil comprehension, such interactions sounded like a ritual. Both Ikeno and his pupils seemingly expected a positive reaction from the latter, as if it was tacitly agreed upon by both agents. Hardman et al. (2008) call it 'pseudo-checking', where students do not have a choice but are expected to give an affirmative answer.

This interaction pattern of teacher checking may represent a power relation rooted in rationalist epistemology. The 'yes' answer would grant the teacher credit that their knowledge transfer succeeded, which could in turn intensify their classroom authority. Correspondingly, the pupils should never utter 'no'. Expressing that they did not understand would challenge the value of the teacher as a source of knowledge. It would also throw doubt on the efficiency of the teacher's means of transmitting knowledge. A negative response to teacher checking appeared outrageous or unacceptable in classroom communication in Tanzania. Countering such a classroom culture was avoided as much as possible in most cases, as I observed no occasions where the pupils declared that they did not understand, except for in teacher Abdu's class in the rural public Kisutu School.

Towards the end of Abdu's English lesson, the teacher gave the class an exercise to construct four sentences using the word 'for' to express time. He checked if the pupils understood the task, asking 'Are we together, class?' Some of them answered 'no'. Abdu's ears caught the word. He then told the pupils five times to raise their hands if they understood. No one raised their hands at first, but as the teacher continued asking the same question more and more, pupils gradually responded positively. Eventually, the whole class expressed that they understood the task, allowing Abdu to conclude that there was no need for him to explain the task again. The teacher made an attempt to ensure pupils' comprehension, and the pupils endeavoured to communicate their honest response that they did not

understand. This might have threatened Abdu's authority, because his knowledge transference may not have completed successfully. In the end, the pupils seemed to be forced to obey his authority. By obtaining the pupils' agreement that they understood the task, Abdu could maintain his control. This case was noteworthy, because pupils were not mere passive listeners but voiced their nonunderstanding, although it represented an extremely rare instance.

The aforementioned examples of teacher checking, including Abdu's case, indicate both pupils and teachers acting on each other to produce a certain pattern of classroom interaction. Teachers possess a higher social position as knowledge depositor than pupils as knowledge recipients. To 'save teacher's face' (Wedin, 2010) and maintain their authority, both agents acted *in collaboration* in the expected manner.

Another interactional situation where teachers and pupils collaboratively sustained teacher authority could be seen in the small percentage (4%) of pupil initiation interaction (Table 5.2). Compared to the large proportion of teacher-led initiation (96%), the pupils barely posed questions to their teachers. It was also rare for them to convey their own ideas or to initiate a topic during lessons. Few teachers provided pupils a space with a sense of freedom to develop opinions or a given line of thought. The lack of pupil initiation seen during the classroom observations accords with studies in Kenya by Ngware et al. (2014) and by Ackers and Hardman (2001). Ngware et al. point out the unchanged teacher-directed classroom practices for the past decade. Raising questions in the face of authoritative knowledge might be seen as breaking classroom norms. The pupils in these previous studies, and in my research, seemed to perform their role as passive recipients, as suggested by rationalist epistemology.

Moving on to the response groups from the IRF categories (Table 5.2), the pupils replied to teacher initiation in unison more than two-thirds of the time (68%) in comparison with individual pupil–teacher interactions (32%). Despite the LCP recommendation to cater teaching and learning to individual children (Rousseau, 2007) or to learn through social interactions (Vygotsky, 1978), individual interactions took place far less often than one-to-mass communication. The prevalence of whole-class answering indicates a social purpose of pupil–teacher interactions for teachers to save face. The answers must be obvious for all pupils to respond at the same time. This would be another way to ensure successful knowledge transmission, thereby intensifying teacher authority.

Classroom interactional patterns with teacher dominance thus resulted from a joint project by teachers *and* pupils. Both agents seemed to hold a view of knowledge, which contradicted constructivist epistemology. An account from a male pupil, obtained in the focus group discussion at Kisutu School, embodies rationalist epistemology. Because this pupil expressed his liking of Q&A activities, I asked why. He replied, 'Teachers know better than us, so when we ask questions, we get a correction'. Teachers teach and pupils receive their knowledge. Right answers and correct responses from the pupils mean that the teacher

has performed his or her duties successfully to transfer knowledge to the pupils. These interactions also grant the teacher authority. Both agents participate to maintaining the knowledge possessors' social status.

The interactional processes of teacher questioning, eliciting and checking also demonstrate their social functions rather than their academic role. Wedin (2010), who analysed pupil–teacher interactions in a primary classroom in Tanzania, remarks that interactional patterns are all that pupils need to recognise. The observed interactions in my research manifested pupils' knowledge as to *how they should act socially appropriately* to adhere to the collective expectation. They were not involved in academic thinking or solving problems. The pupil–teacher interactions seemed to fulfil a social function to save teachers' face and to ensure that they remained in control.

Box 2 St. John School (Urban Private)

Founded and owned by a denomination of Christianity, St. John School is a missionary school that children could attend at a relatively low cost compared to the average for private schools. It was formally founded about ten years before my visit, although the mission had launched a school in Kigoma several years before that. Not all children had a wealthy background, as 15% of parents were not able to pay tuition fees. With the funds from the Church, the school continues to enrol these children, provided they maintain their outstanding academic performance. St. John had sent all pupils graduated during the past three years to secondary schools. Headed by a female priest from India, the school taught close to 700 pupils looked after by about 30 teachers.

Upon entering the school compound, a vast playground and two-storey, U-shaped buildings were in front. The walls of the buildings had pictures of the founders and the missions and visions of the school. St. John had every facility asked about in the head teacher questionnaire, except for a science laboratory, and possessed 64 computers, the largest number among the researched schools. The pupils and teachers offered a prayer and sang a song before class every morning. Both classrooms that I observed also contained drawings of religious tenets and of Christ.

Rajabu's English Class (Stream A)

Rajabu, the English teacher, was about to retire after teaching for 41 years. Sitting on connected chairs in a row, 40 pupils learned about English storytelling in his lesson. Three to four pupils at one desk shared one textbook. The wall was well painted in dark brown and cream, and it had two chalkboards.

The first five minutes of Rajabu's lesson comprised of a review of insect-related vocabulary. The teacher called on pupils one by one, who recalled the names of insects shown in the textbook. Checking with the rest of the class whether the responses were correct, Rajabu wrote the vocabulary on the blackboard.

The teacher transitioned to a reading activity. He demonstrated reading using the story of a man returning to his hometown. The pupils silently listened to him while visually following the story in the shared textbook. Around ten pupils sitting in front were then appointed to read aloud the passage divided into small chunks. After going over the same story three times, Rajabu dictated questions from the teacher's textbook. Because the teacher did not write the question sentences on the chalkboard, the pupils had to concentrate on what he said to write down the questions in their exercise books. The pupils orally repeated each question in exactly the same manner as the teacher, uttering 'comma' and 'question mark', as ordered by Rajabu:

RAJABU: Repeat the question again.
ALL PUPILS: How long has the writer stayed away from his village?
RAJABU: It's what I said?
ALL PUPILS: Yes.
RAJABU: No!
SOME PUPILS: Question mark. Question mark.
RAJABU: Question mark. Repeat again.
ALL PUPILS: How long has the writer stayed away from his village? Question mark.

During such exchanges, Rajabu asked about the spelling of some vocabulary items. It took about 20 minutes to transfer the reading questions to the pupils, and the pupils started to write the answers in their exercise books. Rajabu circulated the classroom to check their work. When he found pupils answering incorrectly, the teacher gathered the attention of all pupils and corrected the sentences. He approached through this process with a harsh manner:

RAJABU: Hasnaa, stand up. Read the question.
GIRL: How long has the writer stayed away from his village?
RAJABU: Yes. How do you start?
GIRL: The writer . . .
RAJABU: The writer. We start with what?
ALL PUPILS: The writer.
RAJABU: Eh?
ALL PUPILS: Writer.

RAJABU: The writer?
GIRL: Stayed away.
RAJABU: [In a loud voice] Read the question!
GIRL: The writer . . . how long has the writer stayed away from his village?
RAJABU: Yes.
GIRL: The . . . the writer stayed away from his v . . .
RAJABU: [Even in a louder voice] Read the question! Answer according to the question.
GIRL: How long has the writer stayed away from his village? The writer . . . has . . . has stayed . . .
RAJABU: The writer has. Has done what?

On another occasion, Rajabu spotted that a boy had an incorrect tense in his exercise book. The teacher said to him, 'It seems you don't . . . you don't learn, is it? . . . You don't study. The family leave. It scares [me]'. To a girl who made a mistake in grammar, writing 'there was going', Rajabu asked, 'Is that English?' Rajabu maintained a coercive manner throughout his lesson, of which the pupils appeared to be frightened.

Ayo's Mathematics Class (Stream B)

The maths teacher, Ayo, in his late 20s, had completed A-level education but had no formal pre-service teacher training. In his mathematics class for Stream B, Ayo taught around 40 students on how to read large numbers. As opposed to the English classroom, Ayo's classroom accommodated individual desks and chairs placed in rows. The teacher table was covered in fabric, and a shelf was placed at the front of the classroom.

I was late for Ayo's class due to a miscommunication about which lesson to observe. When I came in, Ayo had already started his lesson, explaining what place values mean. He asked the pupils whether they could orally read the value of 1,804,625,139. The following dialogue illustrates Ayo's expectation that the pupils could not read it. His voice got louder and louder as it proceeded:

AYO: Can you read it? Can you read this number?
ALL PUPILS: Yes.
AYO: Who can try to read this number?
ALL PUPILS: [Silence]
AYO: If you can, who can try to read this number?
ALL PUPILS: [Silence]
AYO: No one can read this number. Eh? You don't know how to read this number.
ALL PUPILS: Yes.
AYO: If you don't know, I can make you understand how to read this number.

With this note, Ayo explained how to partition the number when reading it. After confirming that the pupils understood his demonstration, Ayo invited a female pupil to write how to read the number in words. She came up to the front and wrote it. The teacher then asked the class whether she answered correctly. Because the answer was wrong but the class agreed that it was right, Ayo told the whole class to read aloud the number. The first utterance he had after this was 'You are wrong. You're wrong'. He proceeded to search for someone who could correct the mistake. Although Ayo reminded the pupils not to be afraid to raise their hands, their hesitation to come to the front was apparent.

Ayo then posed a similar question. The pupils were asked to write the number 1,613,968,002 in words on the blackboard. After seconds of silence, one girl raised her hand and demonstrated on the board. The lesson ended with the whole class verbally reading the numbers. Similar to Rajabu's class, the pupils of Ayo seemed to be terrified by the teacher.

Conclusion: Transversal Succession of Teaching Acts and Epistemology

The interviewed teachers recognised the observable features of LCP. Using terms including participation, activities and involvement, they described the kinds of classroom activities they would employ in LCP classrooms. The LCP-related languages espoused by the international and national governments seem to have reached teachers as local policy actors. However, the literal understanding of observable LCP activities was not accompanied by actual observed practices (Table 5.1). Teacher-directed activities and interactions dominated lesson times. Considering why this occurred, classroom interaction analysis implied an epistemological divergence between how Tanzania historically viewed knowledge and what LCP views as knowledge construction, plausibly leading to certain observable practices. The transversal axis traced in Chapter 4 may reveal how a certain way of viewing knowledge has emerged and been nurtured in Tanzania.

Transversally speaking, a rationalist epistemology appears to have existed consistently throughout Tanzania's history, even during Nyerere's presidency. Education in indigenous Tanzania was supposed to pass on fixed, unchanging customs and traditions to the next generation (Cameron & Dodd, 1970). Learners were not allowed to question or challenge existing knowledge, because it was the absolute 'truth'. Although the way children engaged in learning entailed some observable features of LCP – such as learning by doing and relevance to everyday lives – adults possessed privilege and power as 'all-knowing'.

Nyerere's educational philosophy appeared on the surface to be compatible with LCP principles. Hands-on learning related to agriculture and democratisation through schooling occupied his educational agenda. Nonetheless, although Nyerere (1967, 2004) encouraged democratisation through decision-making by

pupils and free discussion, his educational policy of ESR ended up being idealistic but not realistic. When ESR was enacted, its pedagogical dimensions also did not successfully reach the teachers at the time (Cameron, 1980). This may explain why the teachers currently working in schools did not inherit Nyerere's educational prospects, which was implied through their ignorance of pedagogical dimensions when asked about their understanding of Nyerere. Thus, it is improbable that teachers historically embraced Nyerere's pedagogical policies.

Pedagogical ideas and practices have been passed on from generation to generation, as typified by one lesson scene from this research. When pupils came to the chalkboard to present their answers or to explain the process of solving problems, several of them acted similar to their teachers, guiding the rest of their class to the answer. In Ikeno's mathematics lesson on fractional calculus, a male pupil was appointed to present the process of solving 4/5 + 2/3:

BOY 1: The first step, what do we do here?
BOY 2: We find LCM (least common multiple).
BOY 1: We find what?
ALL PUPILS: LCM.
BOY 1: We find LCM. This denominator is the one which we will use to do what? To find what?
ALL PUPILS: LCM.
BOY 1: So, we find LCM of five and how many?
ALL PUPILS: And three.
BOY 1: Then, it will be how many? You?
BOY 3: Fifteen.
BOY 1: Fifteen. Is it correct?
ALL PUPILS: Yes.

This pupil interacted with the rest of the class with confidence and authority, in a very similar manner to Ikeno. The demonstrating pupil used tactics such as cued elicitation and checking of pupil understanding. All the questions posed consisted of close-ended, factual questions. Ikeno sometimes even asked pupil demonstrators to act like a teacher. At one point, Ikeno called for a pupil, 'Who can come to demonstrate on the board? They will talk like a teacher. Okay, talk like a teacher'.

Barrett (2005) argues that teachers tend to teach in a similar way to how they were taught. As the aforementioned excerpt illustrates, teaching practice can be inherited from a teacher by pupils. This possibly prevents the implementation of LCP in countries where the 'chalk and talk' style has prevailed historically (Prophet & Rowell, 1993; Westbrook et al., 2009). A similar teaching approach between the teachers and pupils observed in this study implies that teachers pass on not only knowledge but also the way they transmit it. Future teachers are likely to preserve the culture of how they are taught. With the dominance of TCP-associated approaches using close-ended questions, repetitions and sentence completions, this could present one barrier to LCP implementation in Tanzania. It seems that unless a radical change in people's view of knowledge takes place,

which hardly occurs according to Tabulawa (2013), the implementation of LCP may end up occurring only observably at best, and in most cases, it will end in failure even at the observable level.

Note

1 It is interesting to note that Zakia referred to a generalised teacher as 'he', although ten out of the 27 teachers at Kawe were female.

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6 Pedagogical Dimensions Beyond Classrooms

This chapter extends a focus from *teachers* and *teaching* in the classroom realm to the attendant discourse of pedagogy spreading throughout the three domains of the conceptual framework (Figure 2.1). The attendant discourse in the outer stratum precedes what happens in the interior domains. The most exterior domain of the conceptual framework, culture and society *locates* teaching in time, space and the social world. Any social phenomena and issues happening in the contemporary world have historical roots. The transversal investigation in Chapter 5 considered how history nurtures expected or *appropriate* human relationships, customs, collective values and local attitudes over time. Communities and families pass on these cultural elements, while altering them to some extent, to the next generation. The inherited tradition, customs and appropriate behaviours inform how teachers and pupils act and relate to each other in school and the classroom.

The next layer of system/policy *legitimates* teaching by enforcing national and local policies, setting up formal examinations and qualifications, putting the curriculum into effect, and providing infrastructure and staff training. Schools are expected to apply the enacted policies and curricula, but various factors surrounding schools – such as facilities, teaching aids and environment – influence the appropriation of policies. The vertical axis of the comparative case-study (CCS) approach plays a useful role in this domain to trace the mutation of learner-centred pedagogy (LCP) policies from international and national to local, explored in Chapter 4.

At the classroom level of the conceptual framework, the first and most immediate components of pedagogy sit to *enable* teaching carried out by teachers. These components include: (a) nature and facilitation of learning, and learning achievements and assessment; (b) scope, planning, practice and evaluation of teaching; (c) characteristics, differences, motivation and needs of students; and (d) curricula presenting ways of knowing and doing. These three layers of the conceptual framework indicate that teaching is legitimised by various factors of the attendant discourse. In other words, teaching happens as a result of the interplay of the aforementioned pedagogical dimensions.

In Chapter 5, I extensively utilised the transversal axis of the CCS approach to unfold the possible influences of history on the observed phenomenon. This

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chapter brings in the horizontal axis to highlight current issues affecting LCP appropriation. This axis unpicks dissimilar effects of the same LCP policies depending on locality. Horizontal juxtaposition of urban public, rural public and private schools suggests characteristics salient to but different between them, and these are likely to be associated with LCP implementation.

In setting out a scene for horizontal comparisons, I first present the results with respect to differing levels of observed-LCP implementation by individual schools and by the three school categories. I also introduce the concept of perceived-LCP, or subjective experiences of LCP-related activities as identified by the pupils. This section compares the extent of LCP implementation observed and perceived, prompting an enquiry into why distinctive differences were seen between observed- and perceived-LCP and between the three school categories. I seek explanatory facets for these differences from the attendant discourse in the system/policy and culture/society strata of the conceptual framework (Figure 2.1). These include environmental and academic issues, which seemed to impact LCP implementation differently depending on school location and type. The nature of pupil–teacher relationships appeared to be another influential aspect for LCP implementation. By attending to all three strata of the conceptual framework (Figure 2.1), this chapter demonstrates the intertwining nature of pedagogy throughout the three domains.

Horizontal Comparison of Observed-LCP and Perceived-LCP

Chapter 5 presented the prevalence of teacher-centred tasks and teacher-led interactions across all observed classes. Although LCP-related activities accounted for only on an average 14% of the 17 observed classes, individual teachers used their lesson time differently according to the data from the structured lesson observations. Figure 6.1 illustrates the binominal distribution for the percentage of the lesson time used on LCP, and Table 6.1 provides the details by school. Five teachers (Abdu, Mosi, Hali, Rajabu and Zakia) did not use LCP-associated activities at all, and another four (Juma, Nyo, Malika and Okapi) spent less than 10% of the lesson time on them. At the other end of the spectrum, Kito and Chane stood out with 44% and 35% of their lesson time used for LCP.

On average, public schools (M = .17, SD = .15) employed LCP twice as much as private schools (M = .08, SD = .11). Urban schools (M = .17, SD = .15) used LCP more than twice as much as rural schools (M = .06, SD = .10). Although statistical significance could not be tested due to the small number of observed lessons (N = 17), public schools and urban schools tended to use LCP-related activities more than private and rural schools. The information presented in Table 6.1 yields corresponding results – namely, that rural public and private schools occupied the lower end without any LCP-associated activity, whereas urban public schools dominated the higher end.

The aforementioned results from the structured observations did not accord with the questionnaire responses regarding what the teachers and head teachers

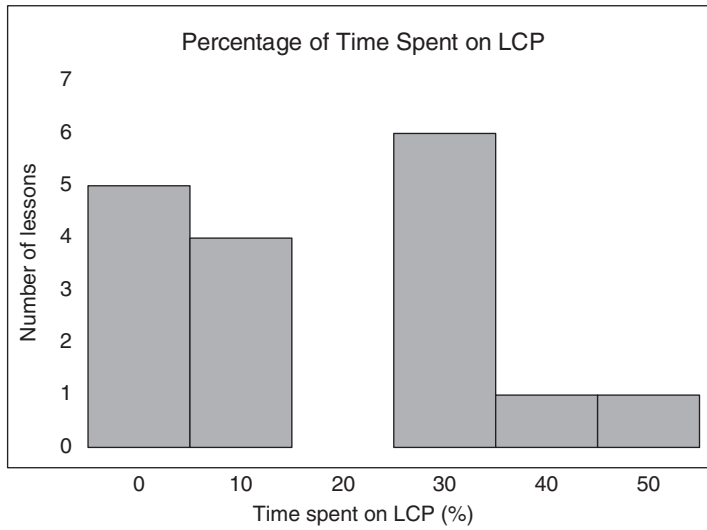

Figure 6.1 Percentage of time spent on LCP over 17 lessons

Table 6.1 Percentage of time spent on LCP by school

Percentage of LCP (%)	*School (teacher name)*	*School category*
0	Kisutu (Abdu)	Rural public
	Siha (Mosi)	Rural public
	Highland (Hali)	Private
	St. John (Rajabu)	Private
	Kawe (Zakia)	Private
0–10	Amani (Juma)	Urban public
	Umoja (Nyo)	Urban public
	Baraka (Malika)	Rural public
	Highland (Okapi)	Private
10–20	None	
20–30	Amani (Aisha)	Urban public
	Mwenge (Jamba)	Urban public
	Kwanza (Ikeno)	Urban public
	Green (Moyo)	Rural public
	St. John (Ayo)	Private
	Islamia (Rashid)	Private
30–40	Mwenge (Chane)	Urban public
40–50	Bunge (Kito)	Urban public

thought happened in the classrooms in relation to LCP. The teacher questionnaire asked teachers' confidence to: (a) answer students' questions; (b) show students a variety of problem-solving strategies; (c) provide challenging tasks

for capable students; (d) adapt teaching to engage students' interest; and (e) help students appreciate the value of learning. The teachers suggested their responses by choosing 'very confident', 'somewhat confident' or 'not confident' to carry out such activities. All but one answered that they were 'very confident' about performing these LCP-related approaches in the classroom. Specifically, they indicated a median score for items (a) to (e) to be 'very confident', except for Rajabu at St John who was 'somewhat confident'. Although most teachers seemed to have relatively high confidence that they could act in a learner-centred manner, instances where they assigned problem-solving tasks or adjusted their teaching to individual students' abilities were rarely captured in the observed classes.

The observed-LCP activities also did not show consistency with head teachers' views on how much they thought the teachers executed LCP-related activities. The school questionnaire enquired into several dimensions of learner-centredness at school. All but three head teachers except for Green, Baraka and Bunge 'agreed a lot' that their teachers tried to employ LCP at their schools. However, more than half of the head teachers – those at Amani, Highland, Kawe, Kisutu, Umoja, Islamia, Siha and Kwanza – 'agreed a lot' that their 'teachers encourage and promote cooperative and hands-on learning', but their responses did not appear to correspond to the results presented in Table 6.1. In a similar vein, although every head teacher 'agreed a lot' that 'students are encouraged to ask questions in the classroom', this rarely occurred during the classroom observation. In particular, Table 5.1 demonstrates the virtual absence of learner-initiated questions and answers (Q&A) in pupil–teacher classroom interactions.

Apart from these results on *the observable act of teaching*, pedagogical elements that form a pair with *teaching* and *teachers* in the conceptual framework (Figure 2.1) involve *learning* and *students* within the classroom layer. While the next chapter deals with *learning*, here I focus on the *students*. In the pupil questionnaire, each of 1,024 pupils rated, on a 5-point Likert-scale, the 14 questions asking for their views about what activities took place in lessons and how they felt about interacting with their teachers (Appendix 7). The questions were meant to quantitatively measure perceived-LCP, or how much the pupils felt they experienced learner-centredness in the classroom.

Values were assigned to each response: 1 for 'Almost never', 2 for 'Seldom', 3 for 'Sometimes', 4 for 'Often' and 5 for 'Very often'. To obtain an 'overall' perceived-LCP score for each pupil, medians (a measure of central tendency for the ordinal data such as Likert-scale responses) of the 14 items were calculated. Figure 6.2 shows the percentages of pupils whose median score for the perceived-LCP falls within one of the five Likert-scale categories. On average, more than one-third of the respondents (39.6% or 399 pupils) answered that they 'sometimes' experienced LCP-related activities, while another one-third (35.3% or 355 pupils) stated that they 'often' engaged in such activities.

Figure 6.3 illustrates pupils' responses to each of the questions (Appendix 7).

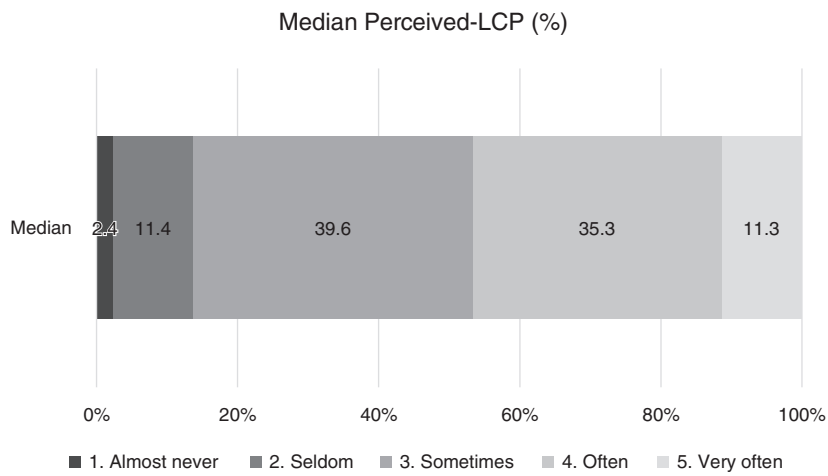

Figure 6.2 Median perceived-LCP

To delve deeper into perceived-LCP, I analyse the data using parametric tests[1]. An independent sample t-test compared the scores for different school categories. The pupils (N = 1,024) going to urban and rural schools differed significantly in mean perceived-LCP scores (t = 4.87, df = 1,005, p < .001). The mean for urban pupils (M = 3.34, SD = .57) was 0.19 points higher than that for rural pupils (M = 3.15, SD = .62), indicating an effect size (Cohen's d) of 0.32. The pupils at public schools in comparison with those at private school also reported perceived-LCP to be significantly low (t = –2.91, df = 1,005, p < .001).

The categories of location and school type were also combined, and one-way analysis of variance (ANOVA) tested the difference of perceived-LCP among pupils in three groups: urban public, rural public and private schools. This yielded a significant overall difference in mean scores between the three categories (F (2, 1,004) = 15.60, p < .001). Pair-wise comparisons using Bonferroni post-hoc tests revealed multiple statistically significant comparisons. Pupils in urban public schools (M = 3.32, SD = .57) and private schools (M = 3.38, SD = .55) rated significantly higher than those in rural public schools (M = 3.12, SD = .63). There was no statistical difference between urban public and private schools.

The aforementioned findings relating to perceived-LCP seemingly disagree with the results for observed-LCP. Despite the *observed* small amount of time spent on group work, demonstration or pupil-initiated Q&A (Table 5.1), most pupils recalled rather frequent occurrences ('sometimes' or 'often') of LCP-related activities. Such inconsistent results between observed- and perceived-LCP imply a curious feature of the data. Rural public schools tended towards the lowest LCP implementation, both observed and perceived. In contrast, pupils at private schools were relatively rarely engaged in LCP-related activities in the observed classes, but their perceived

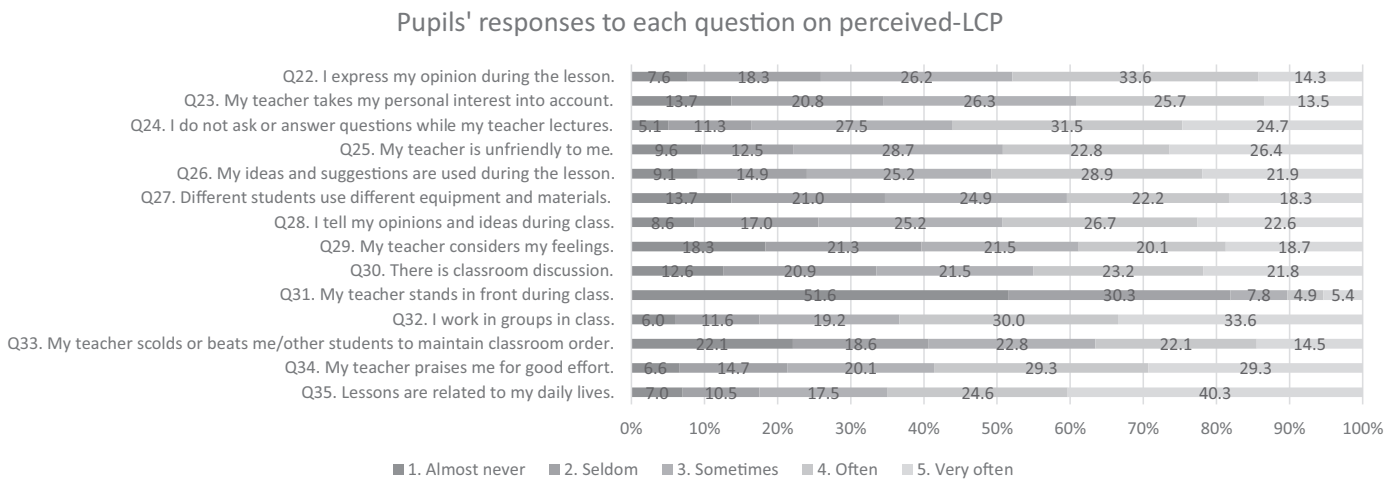

Figure 6.3 Pupil responses to each question on perceived-LCP (*Note*: Questions 24, 25, 31 and 33 were reversed).

experiences of learner-centredness were as high as those at urban public schools. Even with few observable LCP-related activities in practice, private pupils seemed to feel that they were centred in the classroom. This result indicates that the subjective classroom experiences of pupils may not depend on *observable acts of teaching*, to which most existing research on LCP implementation in low-income countries has been devoted. The discrepancy between observed-LCP and perceived-LCP may suggest that LCP occurs not only as the observable form but also is inevitably accompanied by its attendant discourse surrounding the act of teaching.

The relatively high perceived-LCP implied by the pupils arguably corresponded to the responses to the teacher and head teacher questionnaires. As presented earlier, most teachers suggested high confidence in appropriating LCP-associated approaches in the class. The head teachers also expressed their views that the teachers acted in a learner-centred manner. These results conceivably accorded with each other, in that pupils, teachers and head teachers might have perceived that LCP was taking place in the classroom. Such views from the participants nonetheless showed inconsistency with the classroom observation data, in which little time was spent on LCP-associated activities and teacher-dominated classroom interactions (Tables 5.1 and 5.2). The disparity between these two seems to signify policy as a social and cultural product (Levinson et al., 2009); local policy actors, including pupils and teachers, interpret the normative form of LCP within their own context and may act accordingly based on their own understanding of LCP. This perhaps results in 'a Tanzanian version' of LCP understanding, which may not agree well with the policy definition of what LCP should look like. A problem then arises when a researcher endeavours to study LCP implementation based on the normative conceptualisation of LCP.

The aforementioned reflection prompts a question regarding what might have contributed to producing the 'Tanzanian version of LCP understanding'. The LCP perceived by local actors may not necessarily accord with the LCP granted internationally or understood as LCP by researchers. This suggests the significance of examining *perceived-LCP* from the perspectives of the local people, and differentiating it from *observed-LCP* defined on the basis of normative understanding of LCP. The following discussion considers these two sets of LCP while centring on the attendant pedagogical discourse of pedagogy. With a focus on pupil's perception of LCP, I ask *how and why they perceived learner-centredness at a relatively high level*, and *what pedagogical constituents might lead to a certain level of observed-LCP and perceived-LCP*. Thematic analysis of qualitative data (from semi-structured interviews with teachers, focus group discussions [FGDs] with pupils and unstructured lesson observations) complemented by quantitative data (from structured observations and questionnaires) identified three salient themes seemingly related to the two types of LCP. The themes include resource richness, degree of academic emphasis and pupil–teacher relationships. The first two sit within the system/policy realm of the conceptual framework (Figure 2.1), while the third entails both the system/policy and culture/society domains. An interrogation of the attendant discourse across the three layers of the conceptual framework will help explain LCP implementation, both observed and perceived.

Box 3: Umoja School (Urban Public)

Since before independence, Umoja School has undergone repeated merging with and separations from adjacent primary schools in Kigoma. Two schools – one built by parents and the other by the then British colonial government – used to adjoin each other. The independent government combined them into one, but the 2003 decentralisation of education divided it again into four, of which Umoja is one.

The school faced the major roads in the district. Without any gate or fence, children running around the playground were fully exposed to be viewed from the road. Unlike the school condition of the two urban public schools presented earlier, Umoja had only piped water and a staff room out of the nine categories of school facilities asked about in the head teacher questionnaire. The number of latrines (eight) was also the smallest among urban public schools. It accommodated roughly 600 pupils, taken care of by 18 teachers. For the past three years (2012–2014), little more than 61% of the graduates went onto secondary schools.

Nyo's Mathematics Class

Nyo, a maths teacher with 25 years of teaching experience, was one of the oldest teachers participated in this research and had lived through Nyerere's presidency. His lesson was on calculating cubic volume with a class of over 70 pupils. They filled the 23 sets of connected desks and chairs, facing the chalkboard throughout the lesson. Sunshine from the windows and open door acted as the light. In dead silence, Nyo started drawing a cube on the blackboard. The pupils were carefully watching the teacher without a single word. Through whole class recitations and sentence completions, the pupils, led by Nyo, reviewed how to calculate the volumes of the cube and a rectangular prism. Looking at his precisely drawn cube, Nyo uttered, 'You multiply eight for all three sides, height times length times?' The pupils followed, 'Width', as if it were their ritual. They appeared to know when their teacher wanted them to complete his sentence or to give particular answers. In the same manner, as Nyo calculated the volume of the cube on the blackboard, the pupils followed him by stating numbers:

NYO: What do you write?
ALL PUPILS: Zero.
NYO: How many will you have in your mind?
ALL PUPILS: Two.
NYO: One times three?
ALL PUPILS: Three. Five. Nine, six, one. Seven, nine, eleven, two.

NYO: So, we write it is equal to . . .
A FEW PUPILS: Three.

In the middle of the review, Nyo questioned the class about the meaning of surface, sides and edges. The pupils could not give any satisfactory answers, resulting in the teacher's exemplar answers. Fifteen minutes passed, and Nyo called on a male pupil for a demonstration. The pupil acted like a teacher. Turning his back to the rest of the class, the male pupil asked a few factual questions of his fellows, to which they replied in unison.

Nyo was the only teacher who unreservedly gave the pupils strokes during my observation. After the boy's demonstration, Nyo allowed time for the pupils to copy his writing on the board into their notebooks, during which he paced the classroom with a stick. When he reached a male pupil who was not writing properly, he beat the pupil's back three times. The teacher then wrote three problems for the class to solve, and again walked around the room to mark the pupils' answers. He beat the backs of several pupils who made noise, who made mistakes in the exercise and who did not follow the teacher's order to collect the assignment. A few pupils screamed, but the teacher did not desist. The writing exercise lasted for nearly 40 minutes out of one hour, and the lesson ended without any greeting.

Material and Environmental Constraints

Material and environmental obstacles have commonly been cited in existing research as one hindrance to appropriating LCP in the global South. Chapter 2 introduced the issues of overpopulated classrooms (Abd-Kadir & Hardman, 2007; Sifuna & Kaime, 2007), shortage of teaching aids (Altinyelken, 2010; Pontefract & Hardman, 2005) and lack of adequately trained teachers (Lewin & Stuart, 2003; O'Sullivan, 2004; Vavrus, 2009) as obstacles to LCP identified by previous studies. While findings from this research accorded with the empirical evidence, the current study seems to bring new insight to existing knowledge. Previous research investigating urban–rural or public–private discrepancies has tended to ascribe differences in applying LCP mostly to unequal resource richness and school conditions. Brodie et al. (2002) highlighted how poor, rural schools were under-resourced, and Thompson (2013) has advocated implementing LCP in urban, middle-class schools, because they were better conditioned for it. The present research scrutinised not only material and facility conditions but also other aspects conceivably related to LCP implementation, such as academic concentration and pupil–teacher relationships. Furthermore, few studies have explicitly compared the combination of both urban–rural and public–private schools. In this research, the horizontal juxtaposition of 13 schools, grouped into three school categories – urban public,

rural public and private – made it possible to look for intersections of urban–rural and public–private disparities and characteristics in common within the same categories but different between them. The analysis brings to the fore the differential effects that some aspects of attendant discourse may have brought to different categories of schools.

Rural public schools – including Green, Baraka, Kisutu and Siha – stood out in their severe lack with respect to their physical and material environment compared to the other two school categories. Moyo's mathematics class at Green accommodated the largest number of pupils with more than 150, who shared approximately 40 connected desks and chairs with four to five peers. They had to squeeze past each other, and some pupils' legs protruded from their chairs. To manage the class and make sure that his voice reached all pupils, Moyo had to speak loudly throughout his lesson. In the FGD with six pupils at Green, they complained about the overcrowded class and requested that the class has to be split into two streams so that they could better concentrate. The pupils also asked for enough desks for fewer pupils to sit together.

At Baraka, some classrooms were partially abandoned without roofs or floors, and no facilities were available aside from piped water according to the head teachers' responses to the questionnaire. The desks could not stay balanced on the exposed ground of the dirt floors. Kisutu did not have its own school buildings, the head teacher told me in an informal conversation. The government had started building Kisutu two to three kilometres away from the site I visited. Ten years of construction work had not produced adequate buildings, and Kisutu had to rent classrooms from the neighbouring school. The pupils and teachers had to travel further from their home, resulting in truancy on the part of some children. Furthermore, its school compound had a playground but no piped water or electricity.

Siha School had the harshest conditions out of the four rural public schools. It did not have running water. Not only could the pupils not drink water at school, but they also could not clean the latrines. Siha was the only school in which a few pupils sat on the floor during the lesson. Over one-third of the pupils commented on the back of the pupil questionnaire that 'I do not have a desk (*Sina dawati*)'. Even the teachers did not have their own desks, so they used pupils' desks. Most surprisingly, the pupils at Siha told of their experience where teachers used school resources for their personal purposes. As I did not see any textbook during the lesson, I asked in the FGD whether they possessed them:

GIRL: We have books. The books are very few, but they are enough. The teachers keep them in the office without distributing them in the classroom. Even if when they do that, they bring half of the books, and the half of the books remain in the office.
ME: For what?
BOY: Sometimes they take the books to their children.

Allegedly, the teachers took the textbooks home with them instead of bringing them to the class. In addition, Chapter 5 reports on the scarcely legible chalk that

teacher Mosi was using in the observed lesson. The head teacher at Siha, in an informal conversation, attributed this to a delay in government funding:

> The government is supposed to pay TZS (Tanzanian shilling) 9,500 per pupil as school fee [annually]. But we have not received the fund for the past one and a half years. . . . [As a result,] teachers are forced to buy equipment by themselves.
>
> (Informal conversation with head teacher at Siha, 12 November 2015)

Even the pupils in the FGD group recognised this reality. One male pupil complained, 'Chalk is not visible', and continued to explain that '[T]eachers have to buy it with their own money, because the government doesn't allocate money for that. So maybe that's why the teachers use poor chalk'. The lack of funding from the government forced the teachers to purchase teaching aids with their own money, conceivably resulting in their tendency to use affordable low-quality materials.

Such absolute minimalist teaching and learning conditions of rural public schools correspond to the findings of a number of studies documenting urban–rural disparities in sub-Saharan Africa (e.g. Bar-on, 2004; Brodie et al., 2002). In Tanzania specifically, Mtahabwa and Rao (2010) compared four pre-primary schools located in urban and rural regions, observing marked disadvantages in rural schools. They lacked desks and mats, compelling children to sit on the floor. Smaller classrooms accommodated more children than urban schools. The researchers concluded that unfavourable conditions had a negative influence on the quality of classroom practice and child–teacher interactions. Teachers spent most lesson time on classroom management – such as ordering classroom discipline, overseeing pupil behaviour and using time out – than actual teaching and learning activities. They also had difficulty interacting with children individually (Mtahabwa & Rao, 2010). With the overpopulated classes and considerable resource shortage observed in rural schools during the present research, the relatively low percentage of time spent on LCP may have occurred partly due to the harsh teaching and learning environment.

In sharp contrast with their rural public counterparts, private schools (Highland, St. John, Islamia, Kawe) benefitted from considerably better material conditions. Located in the urban centre of Dar es Salaam, a Tanzanian businessman opened Highland School, similar to Kawe introduced in Chapter 5. Highland's guest waiting room had leather chairs and sofas, and a big flat screen TV was playing BBC News in Swahili. A Christian missionary school in Kigoma, St. John, had a vast playground and two-storey, U-shaped buildings. Not all children there were from a wealthy background, as 15% of parents were not able to pay tuition fees. With the funds from the Church, however, the school continued to enrol these children, provided they maintained their outstanding academic performance. Another religious private school, Islamia in Kigoma, was characterised by colourfully painted buildings and flourishing flowers in its school garden.

According to responses from the head teacher questionnaire, the four private schools had access to at least seven items out of the nine facilities asked about (piped water, electricity, library, science laboratory, staff room, playground, school garden, telephone and photocopier). All rural public schools had only one or two, while for urban public schools, this ranged from one to six. Private schools also had dozens of computers utilised in lessons, in comparison with all public schools, which had none for pupil use. Classroom observations additionally revealed that pupils in private schools sat on individual seats, except for Rajabu's English class at St. John. This considerably differed from public schools where pupils shared one long bench with two to five peers.

With the relatively abundant resources, complaints about teaching and learning conditions were much less evident in teacher interviews and pupil FGDs at private schools. Rajabu at St. John and Zakia at Kawe were the only two teachers who reported a lack of textbooks and overcrowded classes, respectively. Okapi expressed his satisfaction with the adequacy of the teaching aids at Highland, stating that he could practise whatever activities he hoped to implement and that he had few limitations to his teaching innovation. In parallel with these accounts made by the teachers, just one pupil at Highland in an FGD expressed his wish for a new whiteboard and charts to be installed. In addition, all four head teachers at private schools reported in the questionnaire that their schools needed no or minor repairs. Their responses diverged from most public schools, which wanted major repairs or for rebuilding to be completed.

Urban public schools – Amani, Mwenge, Umoja, Kwanza and Bunge – stood somewhere in the middle of the other two categories; material conditions were not as dire as rural public schools or as affluent as their private counterparts. Each school expressed their own problems. Both Juma and Aisha, at Amani, said that crowded classrooms made classroom management difficult in terms of implementing LCP. Regarding teaching aids, Mwenge School did not have adequate desks to facilitate group work according to teacher Jamba. Aisha wished that the government would provide enough materials such as flash cards and TVs. Related to this was the absence of computers as a teaching resource, noted by Chane at Mwenge and Ikeno at Kwanza.

The five urban public schools showed heterogeneous characteristics. Amani, Mwenge and Kwanza had four to six facilities of the nine asked about in the head teacher questionnaire, whereas Umoja and Bunge had up to two, which was equivalent to rural public schools. Amani and Kwanza had access to one computer for teacher use, but the other three urban public schools had none. Thus, each school underwent somewhat difficult conditions, but all urban public schools at least had their own school compound and buildings.

Corresponding to several previous studies (Abd-Kadir & Hardman, 2007; Barrett, 2007; Vavrus, 2009), the aforementioned results may suggest resource scarcity as one of the reasons for low LCP implementation in Tanzania. Overwhelmingly populated classes and a lack of desks made it hard for the teachers at Green to manage the class. In need of desks and visible chalk, pupils faced difficulty in concentrating on lessons at Siha. LCP requires a lot of materials

for learning through activities, creative work and arranging students into groups (Ginnis, 2002). This necessitates adequate paper, pens and desks for discussions and student demonstrations. Executing LCP may prove difficult without even these very basic facilities. Given the crowded environment, peer interactions and group work recommended in LCP tenets (McCombs & Whisler, 1997; Vygotsky, 1978, 1986) placed a further burden on teachers. As such, material constraints are likely to hamper LCP implementation.

Nonetheless, such material and environmental problems seem not to adequately explain the differing levels of observed-LCP between the three school categories. Observed-LCP by individual schools (Table 6.1) showed that both rural public and private schools had a significantly smaller percentage of LCP-related activities compared to urban public schools. However, the former two school types exhibited distinguishing resource richness. The extreme shortage of facilities may prohibit observed-LCP implementation at rural public schools. On the other hand, the private schools enjoyed comfortable facilities and sufficient teaching aids from individual desks and chairs to computers. This nevertheless did not lead to a higher degree of observed-LCP during their lessons. Table 6.1 shows that half of private school classes did not implement any LCP-associated activities, while the other half had less than 30% of time spent on such activities. In a similar vein, although urban public schools possessed fewer educational resources than private schools, they leapt to the very top of the LCP-time scale. Additionally, all urban public classes spent at least some time on LCP-related tasks.

Comparison between distinctive school categories enabled this study to challenge the existing literature. Thompson (2013) argues that private schools, economically more congruent with the schools and classrooms in LCP-exporting countries, are more conducive for adopting LCP. Lattimer and Kelly (2013) demonstrate the successful implementation of LCP in a relatively well-conditioned classroom in Kenya. However, their claim would seem inconsequential, as they base their evidence on a technicist approach, in that LCP implementation is possible as long as material conditions are met. The data from the present study indicate that even if a school has relatively sufficient materials – as in the four private schools – LCP may not happen in classrooms at an observable level. Factors related to observed-LCP implementation should lie multi-dimensionally. What other factors may lead to the differing extent of LCP implementation, according to the horizontal juxtaposition?

Box 4 Bunge School (Urban Public)

Bunge School was historically a government school. It was founded as part of the government's Primary Education Development Programme aiming at enrolment expansion in the 2000s. The children around the area used to go to another school prior to the establishment of Bunge. The school

buildings and corridors looked old, with paint coming off the walls, and only electricity was available in the nine facilities asked in the questionnaire to the head teachers. The school was nonetheless kept clean and tidy.

Bunge had the smallest number of pupils with the smallest pupil–teacher ratio among public schools in the urban area; 24 teachers taught just under 650 pupils. The transition rate for the past three years was the second lowest among the 13 schools visited at less than 10%. Upon my arrival, I saw a number of pupils energetically playing with balls, sticks and other objects from nature on the playground. When the bell rang, the pupils punctually went into their classrooms.

Kito's Mathematics Class

Kito, a mathematics teacher in his early 30s, taught almost 100 pupils, two-thirds of whom were female. The lesson started with a review of coordinate quadrants. Three to four pupils shared the 28 sets of connected desks and chairs, and no empty seat was left. The mud wall did not cover the bricks at the bottom, and the classroom felt a little dark due to the direction of the sun. The lesson on coordinate geometry started with a Q&A. Kito asked the pupils whether each quadrant has a positive or negative point on the X-axis and Y-axis. After the brief review came an exercise involving the whole class. Kito called one boy and two girls to come to the front and act as demonstrators. The rest became the coordinates. The three demonstrators selected Y-axis and X-axis using their classmates in certain rows and columns. They chose one colleague from anywhere in the classroom. Kito asked the whole class at what point on the coordinate plane the selected pupil was sitting. The teacher illustrated the concepts of positive and negative coordinates, using the pupils' names. In this activity, the whole class was involved in forming a coordinate plane to learn how they should locate points on the coordinate.

The next activity was a small group discussion with three to four colleagues. They discussed how to read seven points on the coordinate plane which the teacher put up on the board. Different from group discussions in other observed classes, Kito encouraged the pupils to actually talk and make the class noisy by saying, 'I want to see people are discussing. . . . [D] o not let one person do the work without discussing with others'. After that, the teacher had them exchange their notebooks with neighbouring groups, so that they could mark each other's answers. The teacher gave a direction that the group had to collaborate in marking. The whole class then went through the maths problems together with Kito. The groups which gave incorrect marks were asked to stand up and dance by swinging their hips, while the rest of the class sang with 'Kata kata kata . . . (Twist twist twist . . .)'. It was meant to 'punish' those who gave incorrect marking, but

both those who danced and those who watched the dancing laughed and seemed to enjoy the activity. This was repeated for the second question. From the third question onwards, the pupils waited to dance at the end of this learning activity. In his interview, Kito elaborated the rationale of this 'punishment'. 'It makes those who have understood enjoy the lesson', while at the same time, it 'make[s] those who are failed to . . . try to do well [next time], so that she or he doesn't have [to] play in front of the class'.

A writing assignment followed the correction of the maths problems. The pupils quietly worked in their exercise books. Kito went over to a group which made several mistakes on the previous exercise to teach them individually. After a few minutes, the teacher went around the classroom and marked the work of those who had completed the task.

At the end, Kito concluded the lesson in a manner similar to Ikeno at Kwanza, linking the lesson topic to everyday life. He asked, 'How do you think coordinate geometry can be applied in our daily life? Or, when we are at home, in what aspect is coordinate geometry used?' No one answered for a few seconds. The teacher asked again by phrasing the problem differently, to which a girl replied, 'To direct to a place'. Kito then asked the pupil to elaborate her answer and she somewhat hesitantly added 'to direct to a place like inside the house'. Kito expanded her answer to direct people on the street and appreciated her attempt. Because no one could give any other example, the teacher assigned a task to the whole class to think about by the next day.

Extent of Academic Concentration

LCP encourages learning through experience and discovery and through the five sensory systems. Living in the Enlightenment era with a focus on empirical observation and experiment, Rousseau stressed discovery learning. Darling (1994) remarks:

> Instead of being taught other people's ideas, Emile is to draw his own conclusions from his own experience. For one thing, active use of one's mental powers in making sense of things gives one an increasingly resourceful mind. (p. 12)

This principle led Rousseau to argue for children to 'be free to move around, to play, and to explore' (Darling, 1994, p. 8). Ginnis (2002) follows Rousseau's notion to emphasise learning using different human senses. Pupils exploring things with their own hands based on their natural interests would aid in learning and the retention of knowledge. In the context of Tanzania's educational development, Nyerere (1967) urged learning in the real environment through

self-reliant activities. Envisioning *ujamaa* villages where farmers would cooperate to sustain their own lives through agriculture, the then president wished to incorporate schools as part of the community. Education through self-reliant tasks would nurture future citizens equipped with cooperative attitudes and agricultural skills (Nyerere, 1967).

Contrary to these ideals of early theorists and Tanzania's influential past president, the researched private schools prominently lacked time and facilities for activities other than academic study. This feature seemingly resulted from their aspiration for their pupils' improved exam performance, leading to a certain school–parent relationship and a distinctively academic focus.

According to the pupils in the FGDs, Highland and St. John did not maintain a playground in good condition. Because the former owned no playground in its compound, few physical activities took place. Once a week, the pupils went to a field some distance from the main campus, where they took part in games and exercises, but the pupils wanted more time to play outside. Teachers and pupils at three private schools, except for Islamia, reported longer periods of time for studying. The pupils moaned that there were few breaks between classes, because teachers came in one after another. At Highland and Kawe, which topped the national and regional league table, the pupils stayed in class until close to midnight and started morning classes from 8 a.m. In the former case, they had to study even on weekends and during holidays: 'These days, maybe Sunday and Saturday, we are . . . we are coming to class just to study', a female pupil at Highland reported.

The excessive concentration on studying at private schools, especially in Dar es Salaam, focused on obtaining high performance in the official exams. In an interview, teacher Hali at Highland expressed a dilemma between the responsibility to complete the syllabus and the use of LCP:

> We are given a very short period of time to cover the syllabus. So, you'll find if you always use the participatory method in teaching, obviously you will have to use more than 40 minutes.
>
> (Interview with Hali, 15 November 2015)

The pupils understood the importance of completing the syllabus at the expense of having the chance to choose what to study. A girl at Kawe explained, 'Most of the time, the teacher has to complete the syllabus. So, we can't decide [the contents]. He says we must complete the syllabus'. Covering the whole syllabi is imperative for pupils' exceptional achievement in official exams, and the fee-paying schools seem to fulfil their accountability to parents by means of children's constant academic improvement.

Private schools in Dar es Salaam consider parents to be their customers, while the schools provide the required services. When asked whether they collaborated with parents or the community, Hali and Zakia noted that their schools were run by themselves. Hali continued, 'what they [parents] do is only to pay school fees. . . . Then, they leave their children to us to look after them. That is

all'. Hali's colleague Okapi emphasised the school's responsibility for children's performance: 'Whenever we meet them [the parents], we discuss how to make our school perform better . . . in terms of the national exam'. Highland and Kawe also held a parents' visiting day. The parents came to observe lessons and received consultation individually on their children's performance. The visiting day was not mentioned in the private schools of Kigoma. The only teacher in the region who referred to examinations during class was Rajabu at St. John. In his observed class, he reminded his pupils that Standard 7 just took the national exam and encouraged his Standard 6 pupils to study hard to graduate.

Along the horizontal axis, public schools presented a stark difference in how they related to the parents. They saw the latter as partners who ran schools in collaboration with them. The schools asked for financial assistance from the parents due to a lack of government funds, so the schools needed to maintain favourable relations with the parents. The parents should be informed about how the school was organised, teacher Jamba at Mwenge noted. Instead of a visiting day for academic monitoring purposes, as seen at their private counterparts, some public schools invited the parents to discuss a wide range of issues from pupil exam performance (Green) and discipline (Amani, Mwenge) to remedial classes (Umoja, Baraka). Mwenge had a counselling service for both pupils and parents, and Baraka discussed how to arrange remedial classes with the parents. The teachers at Mwenge, Umoja, Kwanza and Bunge said that friendship should be nurtured with the pupils. Juma, Aisha and Nyo tried to understand the family problems pupils were facing through informal conversations. It seems that schools' reliance on families to continue their operation motivated public schools to nurture agreeable relations with parents.

The government of Tanzania sets national education policies adhering to globally recommended LCP implementation. The vertical examination in Chapter 4 demonstrates that the country's national policy documents for the past few decades (MoEST, 2016; MoEVT, 2006; MoEVT, 2010; MoEVT, 2013) embrace learner-centred teaching. The most recent Education Sector Development Plan (MoEST, 2018) has carried on with the conviction that teacher-training programmes should enable the teachers to 'promote a more learner-centred approach' (p. 87). However, what is measured in national tests contradicts what is expected as a result of LCP practices. Several authors have pointed out the dominance of factual knowledge tested in official examinations in Tanzania (Bartlett & Vavrus, 2013; Vavrus, 2005). The exams weigh memorisation of information rather than the ability to think critically or to solve problems through peer discussions or hands-on learning. A thorough analysis of secondary exams by Bartlett and Vavrus (2013) reveals prevalent test items with 'multiple-choice, matching, true or false and sentence-completion' (p. 98). These questions demand one 'correct' answer, thus falling into what Tabulawa (2013, p. 54) calls 'right-answerism'. Right-answerism is better aligned with a rationalist epistemology, which argues for the existence of absolute knowledge, as opposed to a constructivist epistemology. Teacher-centred approaches based on rationalism seem a better fit to produce pupils capable of recalling correct answers in the national assessment.

For teachers in Tanzania, examination results would appear to be a more immediate and important concern than the international and national promotion of LCP policies. Exam results determine school performance, on which parents base their decisions about where to send their children. Private schools must demonstrate that they provide value for tuition fees, and thus, they displayed a marked tendency to attach importance to the examination. In addition, teachers in Tanzania could earn 'motivation money' if their pupils achieve outstanding exam performance (Bartlett & Vavrus, 2013). It can therefore be said that the national exams bring more tangible outcomes to teachers than a broad consensus on LCP implementation among international and national bodies. Those who are trained in reproducing the correct answers achieve higher exam marks than those who are good at analysis, evaluation and synthesis. It would be logical for teachers to utilise teacher-centred pedagogy (TCP), because it justifies and encourages the memorisation of fact-based knowledge.

In sum, the overall, averaged result of observed-LCP revealed its poor implementation, with less than one-fifth of class time spent on LCP. A horizontal contrasting of the schools elucidated differing implementation levels of the same LCP policy depending on locality. Urban public schools tended to practise more LCP-associated activities than their rural public or private counterparts. Although the latter two had a similar implementation level of LCP, distinctive factors of the attendant discourse seemed to influence them. Environmental constraints were a more apparent barrier to rural public schools, whereas excessive academic weight appears to be more influential in private schools. By the same token, how pupils interacted with their teachers at school and adults at home varied between the three school categories, and the variation seemed to be related to *perceived* level of LCP, to which the discussion now turns.

Box 5 Highland School (Urban Private)

After passing through the gate of Highland School in the urban centre of Dar es Salaam, I saw a canteen on the right and a spacious room on the left. On the wall of the room, a big flat screen TV played BBC news in Swahili. Leather chairs and sofas were waiting for guests. Behind the reception room were partitioned-rooms for the head teacher, academic coordinators and a secretary.

A Tanzanian businessman started Highland about ten years ago. It provided nursery and primary education with English as the medium of instruction. It was one of the top performing schools regionally and nationally, and all graduates had continued their education at secondary school for at least three years prior to my research. To reach high levels of achievement, the school held classes until midnight, as reported by both pupils and teachers. Highland kept the smallest pupil–teacher ratio among

the 13 schools, with roughly 340 pupils taught by 22 teachers. Although the school had the most facilities, including 40 computers, its compound did not possess either a playground or a school garden.

Hali's English Class (Stream A)

The two teachers who participated in the study at Highland had higher qualifications than the other teachers in the research. The English teacher Hali, who taught Stream A, had graduated from a two-year diploma course, after which he had taught for six years. His class on relative pronouns had 36 pupils sitting on individual chairs. Other than the blackboard and chalk, the classroom accommodated a bookshelf, albeit without any books, a teacher's table and two teacher desks. The colourfully painted wall showed English time expressions and French vocabulary.

Greeting the class was followed by Hali's questioning what a relative pronoun is. Nobody answered at first, and the teacher made the pupils repeat standing up and sitting down twice to wake their bodies up. A few pupils gradually started raising their hands, answering 'he', 'she' and 'it'. As these are pronouns but not relative pronouns, Hali asked the class what 'pronouns' are and directed them to construct sentences with pronouns. He then connected personal pronouns with relative pronouns by explaining 'Relative pronouns are pronouns which relate . . . which you relate a subject . . . which will relate a subject and other parts of the sentences'. A boy then answered 'who'. A girl followed him with 'which'. Then, many hands were raised up. Given that the class seemed to understand what a relative pronoun was, Hali requested them to construct sentences using the relative pronouns 'who', 'which', 'whose', 'where' and 'when'. In calling on them, he seemed to intentionally involve every pupil in the classroom. He told the class, 'The same hands, I'm not happy'. He called on those who were quiet and sought for their answers. Even if they made a mistake, Hali followed up by thanking them their contribution. At one point, Hali said, 'Thank you for your try. Thank you for sharing what you have'.

The pupils appeared to be comfortable being taught by Hali, as they made jokes in constructing sentences to make fun of him:

BOY: Mr Hali is a man who eats a lot.
HALI: Me, a teacher eating a lot. Ah, ah . . . have you ever seen me eating?
ALL PUPILS: Yes.
HALI: So, I eat a lot?
ALL PUPILS: Yes/No.
HALI: You mean that I am a glutton?
ALL PUPILS: Yes/No.

HALI: Does that mean I am a glutton?
ALL PUPILS: Yes/No.

Such an exchange occurred several times, after which the pupils laughed.

From the start of the lesson, the class spent 30 minutes on individual Q&A, mostly on pupils making sentences. The last 10 minutes were spent on a writing exercise. Hali wrote 11 problems on the chalkboard and stated, 'I would like to get my books immediately after lunch'. While circulating around the classroom, the teacher asked if the pupils understood everything, to which they all responded with 'yes'. Another teacher in charge of the next lesson came in, and Hali's class ended.

Okapi's Mathematics Class (Stream B)

The male mathematics teacher, Okapi, had been to university and completed a one-year teacher-training course. Okapi had 34 pupils in his lesson on angles. They sat on individual seats. In addition to a blackboard and chalk, the classroom had a teacher's desk, a teacher's chair, one bookshelf and one computer for the teacher's use. Although the room was lit by sunlight, a fan on the wall was in operation. A sheet of pupils' test scores was also posted on the wall.

Okapi started his lesson on different types of angles with teacher-led Q&A. In verbal exchanges between Okapi and the pupils, cued elicitation was the most common form of communication. The pupils knew what to say to complete the teacher's sentences:

OKAPI: It can face downwards. So, if they draw it facing upwards or downwards, whichever wards. Don't get confused and say that this is a different type of what?
ALL PUPILS: Angle.
OKAPI: Or it can face upwards. That's it. All those small diagrams represent an acute?
ALL PUPILS: Angle.
OKAPI: Which ranges from zero degrees up to eighty-nine?
ALL PUPILS: Degrees.
OKAPI: Let's note that . . . let's just note about . . . it ranges . . . it ranges . . . it ranges from zero degrees up to eighty-nine?
SOME PUPILS: Degrees.
OKAPI: But it's not bigger than eighty-nine?
SOME PUPILS: Degrees.
OKAPI: Which means that, an acute angle is less than ninety?
SOME PUPILS: Degrees.

In this verbal exchange, what Okapi wished the pupils to state was not an answer but general words such as 'angle' and 'degree' in unison. Moreover, Okapi sometimes gave the pupils a hint as to what should follow. He indicated the first syllable of answers, such as 'interse . . . ?' and 'or . . . ?' when he hoped to hear 'intersection' and 'order'.

This class also had pupils who raised questions without hesitation in the middle of the teacher's explanation. A female pupil inquired as to how many line segments were in a straight angle. Instead of answering her query straightaway, Okapi sought an explanation from the floor. This created a space for pupil–pupil interaction. At the end of the lesson, Okapi asked if anybody had questions. One male pupil raised his hand, which was observed only in this class. To his query of how many degrees an acute angle has, Okapi welcomed answers from the class. Another boy stated, 'He can say any angle, but it must range from zero degrees up to 89 degrees'.

When Okapi was going through five types of angles – acute, right, obtuse, straight and reflex angles – he wrote the shapes on the blackboard. The pupils waited for the teacher's cue to copy them into their notebooks. For the remaining three minutes of the lesson, Okapi wrote questions on the board and left, expecting the pupils to complete them during their break time.

Nature of Pupil–Teacher Interactions

Classroom interactions between teachers and pupils, as presented in Chapter 5, were revealed to be teacher-dominated and captured teacher authority. Such behaviours might be rooted more broadly in people's ways of viewing knowledge as being based on rationalist epistemology that places the knowledge possessor in a socially higher position than the knowledge receiver (Pignatelli, 1993). The way a person interacts with others would not be confined to the classroom; it is established and nurtured in schools, communities, families and wider society. In the conceptual framework (Figure 2.1), human relationships present continuity across the three layers of classroom, system/policy and culture/society. How pupils interact with a class teacher in the classroom will, arguably, reflect how they relate to other teachers outside classrooms to some extent. Furthermore, these could reflect how children build relationships with adults beyond the school environment to a certain degree. In an attempt to unpack child–adult relationships within and outside school, this section deals with pupils' accounts of their perceived relationships with their teachers and parents generated from the FGDs. A horizontal comparison of FGD data across 13 schools demonstrated the prevalence of corporal punishment in classrooms, which was supported by my observation of caning in one lesson at Umoja. Punishment seems to have a significant effect on how much and how comfortably pupils can express their

democratic views at school. Not only does physical punishment stifle children's voices, but it also runs counter to the spirit of LCP (UNICEF, 2009). Beyond schools in the culture/society domain of the conceptual framework (Figure 2.1), pupil narratives suggest that families' socioeconomic backgrounds could, to some degree, have a bearing on the extent to which children can express their opinions at home.

Corporal Punishment Hindering Children's Voice

Corporal punishment is common in school and home settings, especially in low-income countries such as those in sub-Saharan Africa. In Tanzania, the law does not prohibit corporal punishment at school (Global Initiative to End All Corporal Punishment of Children, 2018), and empirical research evinces its prevalence in the country. In a national survey on physical, sexual and emotional violence against children conducted in Tanzania (URT, 2011), approximately three-quarters of 3,739 young people aged 13–24 reported that they had experienced physical violence at home. Relatives, authoritative figures and intimate partners slapped, pushed, hit and/or punched them. In a quantitative survey focused on primary-aged children, Hecker et al. (2014) found that 95% of 409 participants reported receiving corporal punishment at school. Tao (2013) examined teachers' rationales for executing corporal punishment. For teachers, punishment was necessary to discipline and manage the class, especially in a crowded room where some students disturbed the learning of others. These studies all show the prevalence of corporal punishment against children at schools in Tanzania, leading the researchers to suggest its normative and culturally expected nature (Hecker et al., 2014). The results discussed in the following substantiate the previous findings, and further illustrate pupils' experiences with corporal punishment.

This study did not set out to explore corporal punishment at the beginning of the research. I structured the questions for pupils to broadly understand the challenges they may face in the classroom and at school. In the FGDs, the topic guide explored a range of questions, more negative examples included, 'What do you like the least about lessons? What kind of lesson activities do you dislike?' and 'Imagine, if you could change one thing about your class, what would you like to change?' (Appendix 6). Out of 17 groups, 12 – from both public and private schools and both urban and rural schools – answered 'corporal punishment' to these inquiries, while the other 5 classes – all located in the Kigoma region, including Kwanza, Bunge, Baraka and St. John schools – did not refer to issues of physical punishment in their FGDs.

According to a boy at Mwenge, '[When] some students fail to do well in that exercise, . . . they [the teachers] beat'. Another boy at Islamia informed me that the teachers would not listen to the pupils' explanations, but 'he just beats you'. 'Bad behaviours' that provoked teachers' punishment included pupils' incomprehension, giving incorrect answers, poor exam performance and making a noise. The teachers at Amani, Mwenge, Highland and Green often punished the whole class even if only a few people had committed these 'bad' behaviours, the pupils

reported. The teachers also hit them without any reason, as they sometimes brought anger from home and hit the pupils, according to a female pupil at Kawe. Common forms of punishment involved beating hands, heads and other body parts with sticks (Umoja, Green, Kisutu, Siha and Highland). As reported in Chapter 5, I observed teacher Nyo at Umoja hitting several pupils on the back for their incorrect answers and disobedience during my observation. Teachers may also force pupils to do physical exercise, including hopping and doing headstands as punishment (Mwenge, Green and Highland). During the FGD at Highland, the pupils showed me a pose with their hands on the floor lifting their entire body up; a female pupil explained, 'We stay like this even for ten minutes'.

These pupil accounts of corporal punishment contrasted with teacher views of pupil–teacher relations, demonstrating an advantage to gleaning data from different social groups based on constructivist ontology. When asked about how they interacted with the pupils outside classrooms, several teachers said that they were friendly with the pupils. For teachers Chane and Ikeno, it was important that pupils recognised the teachers' love so that the pupils would come to like the academic subject taught. Nyo stressed that this was 'the only way to make teaching and learning be smooth'. Hali ate meals with his pupils in the school canteen while talking about their hobbies and views. Outside the classroom, teachers talked with pupils about their families (Aisha, Chane), academic subjects (Juma, Chane) and the challenges pupils faced at home (Hali, Rashid). The contradictions between pupil and teacher narratives indicate the need to have multiple stances when investigating this phenomenon, because which social group people belong to determines what they report (Mitra, 2003).

A vast amount of research has demonstrated the various behavioural and psychological effects resulting from corporal punishment. It can be strongly associated with externalising problems such as aggressive, antisocial and criminal behaviours (Hecker et al., 2014; Mulvaney & Mebert, 2007). Internalising problems including poor mental health and anxiety can also be provoked (Turner & Finkelhor, 1996). In addition, physical punishment can impair the child–adult relationship, as identified by Gershoff (2002). It is associated with negative feelings of fear and anxiety. If punishment persists, children avoid communicating and interacting with teachers. In the FGD at Kisutu School, a female pupil reported that a glimpse of a teacher with a stick made pupils 'become afraid [. . . and] not want to follow the teachers'. A fear of caning also interrupted their learning. Several pupils declared that they could not concentrate on the lesson due to thinking about punishment (Amani, Highland and Kawe). Two pupils at Mwenge also felt fearful of speaking up and saying that they did not understand or of asking questions because of the possible punishment they might receive. Fearfulness towards teachers might explain why pupils hardly asked questions or consistently affirmed their content understanding during lessons, as reported in Chapter 5.

The negative effect of corporal punishment on pupil–teacher relationships permeated the school context beyond classrooms. Although it is impossible to prove a causal relationship, pupils' fear seemed to halt their freedom of expression. According to the head teachers, all schools except for St. John held student

associations as a mechanism to collect the views of pupils. However, these organisations did not function in the manner intended, especially at rural public schools like Green and Siha. The leaders of the student organisations were not active at Green. A girl explained its reason, 'We are not free to give our views, because the teachers are so harsh', and a male pupil echoed her:

> Some teachers are so harsh. Therefore, students are afraid of them. We are afraid to give our opinions. Even if we try to ask questions, we end up maybe getting strokes.
>
> (FGD at Green School, 19 October 2015).

Likewise, although Siha had a student committee, it existed as a symbol and was not operating in practice. One of the male pupils explained:

> We have a school government. But they are just there as a symbol, and they are not working. Because even themselves, they are afraid. The prefects are afraid of facing the teachers on behalf of the students. Because when they go there, sometimes they are being shouted at.
>
> (FGD at Siha School, 10 November 2015)

Student representatives were afraid of facing teachers in case they were shouted at. International policies of LCP encourage children to be decision makers regarding school management and with regards to what and how to learn (UNESCO, 2004; UNICEF, 2009). They base their rationales on the early theorists like Rousseau (2007), who prioritised children's experience and curiosity, and Dewey (1916), who promoted democratic decision-making processes at school. However, widespread punishment seemed to ensure that pupils kept a personal distance from their teachers. With their fear of the teachers, these policies would not work as expected in local schools.

Nevertheless, not all schools with corporal punishment silenced children's voices. Pupils at Amani could generally express their opinions or ask questions outside the class, although whether these were taken seriously varied from teacher to teacher. At Kawe, the pupils comfortably proposed what they would like to learn in remedial classes, or told the teachers what they did not understand. Umoja and Highland also had mechanisms to collect pupil views through anonymous opinion papers and school meetings, respectively, although these mechanisms appeared to be somewhat tokenistic. Pupils at Highland had asked for a playground to be installed and for changes to food served at the canteen, and at Umoja, they reported absenteeism and lateness of teachers, but no changes were observed at either school.

At the same time, there were schools where pupil responses indicated an absence of corporal punishment, including Kwanza, Bunge, St. John and Baraka, all of which are in Kigoma. Not mentioning occurrences of punishment does not necessarily indicate its complete absence from the school, but the pupils at these schools neither expressed fear of their teachers nor showed an avoidance of them;

however, and at odds with this, it was the norm at St. John and Baraka that pupils followed all the orders the teachers imposed. The former did not even have a student association, indicating that there was no space for the pupils to collectively express their views.

In contrast with pupil's views from most schools, pupils at two of the aforementioned four schools – Kwanza and Bunge (urban public) – explicitly manifested positive views towards their teachers. Teachers helped with learning in different subjects and listened to the pupils both inside and outside classes. Those who were at Bunge were willing to point out teachers' mistakes 'because no one is perfect', as one female pupil stated. Peer discussions after classes to inform the teachers of problems were prominent at Kwanza. In addition to the absence of accounts concerning caning, the pupils at these two schools did not utter complaints against the teachers or school governance, which did not happen at any other school. Instead, they accused their peers of being noisy, late and playing truant and not cooperating in group work and disrespecting others. A female pupil in Bunge noted, 'I don't like self-centred students. They always like to be alone. That habit makes them not gain a lot of ideas from other friends'. These pupils seemed to take more responsibility for their learning compared to other schools. Comments by a boy at Kwanza exemplified this, 'They [peers] don't concentrate; and when the exam comes, they fail. And when they fail, they blame teachers that teachers don't teach . . . while the problem starts from themselves'.

Consonant with the literature on corporal punishment in Tanzania (Global Initiative to End All Corporal Punishment of Children, 2018; Hecker et al., 2014), at most schools in this study, regardless of school type (public or private) or geographical location (urban or rural), the problem of corporal punishment was present. Teachers often gave pupils strokes and compelled them to do physical exercise as a punishment. The pupils could be physically punished for poor academic performance and discipline, or sometimes without any reason. Horizontal examination in this study further illustrates that the way the caning problem affected pupils' schooling experiences differed notably among the three school categories. Corporal punishment silenced the voices of pupils at rural public schools to a great degree. Those at Green and Siha were excessively afraid of asking questions or proposing their needs to the teachers, because they might be beaten. Their fear also turned the student association at Siha into an empty symbol, whose leaders were afraid of the teachers shouting at them. Those at Kisutu and Siha always followed teachers' orders and never gave their opinions. At urban public and private schools, the pupils complained about corporal punishment, but they appeared notably less frightened of their teachers compared to their rural public counterparts. The teachers' attitudes towards the pupils varied at Amani and Mwenge. Some took pupils' opinions seriously, while others ignored them. Some talked with pupils in a friendly manner, but others were harsh. In contrast, pupils were even confident enough to point out teachers' mistakes at Bunge. At two private schools in Dar es Salaam, a few pupils posed their questions to the teachers in the middle of the class and submitted their wishes at school meetings, despite experiencing corporal punishment by the teachers. Why,

then, did corporal punishment affect those at urban public and private schools less than pupils at rural public schools?

Pupil–Teacher Relationships Reflecting Child–Adult Relationships in Society

Beyond the system/policy layer of the conceptual framework (Figure 2.1), there is the culture/society stratum. The embeddedness of the former in the latter suggests that child–adult relations practised in wider society may be reflected in human relationships at school to some extent. To investigate one dimension of human interactions, I asked the pupils in the FGDs about their family relationships and family life. Specifically, they responded to the questions such as, 'At home, what kind of things do you talk with your parents and siblings?' and 'When you discuss family matters and make decisions about something with your parents, do you express what you think to your parents? If so, do they take account of your views?' (Appendix 6). Of the responses the pupils provided, the ways they communicated with their parents showed patterns along the horizontal line of school categories, and their families' socioeconomic status seemed to suggest implications for family relations, possibly also affecting pupil–teacher relations.

For example, pupils attending private schools enjoyed affluent lives, and their wealth might have allowed parents to fulfil their children's requests and offer tempting rewards. Two male pupils at Highland reported that their parents often agreed to their wishes. Other parents were willing to purchase various things, from stationery (Highland, St. John) and books (Islamia) to clothes (St. John) and a computer (Islamia). A girl at St. John described her story of negotiating a hope with her parents:

> I used to go to a public school but wanted to move to a private school. I told this to my parents. They listened to me, my opinion, and they brought me here.
>
> (FGD at St. John, 6 November 2015)

Pupils at Highland seemed motivated to study for valuable rewards, and children's academic performance appeared to be a high priority for parents. If they finished primary schooling with good grades, the parents promised to take them abroad, including to South Africa, China or South Korea, for further study. Additionally, the children could sometimes propose to their parents which products to buy (Kawe) or where to go for family excursions when their schools had holidays (Highland). No pupils at private schools mentioned their parents denying their requests. It seems that relatively high socioeconomic status could offer a space for these children to express and discuss their own desires and ideas with adults at home.

At public schools in both urban and rural areas, the situation varied from family to family. Public schools often requested that families make a financial contribution due to the shortage of government funds, as opposed to their private

counterparts where all costs were included in school fees. The children needed to ask their parents for money for examinations, remedial classes and the maintenance of school buildings. Several pupils at Amani, Mwenge, Umoja, Green and Siha reported that their parents were cooperative about spending money on such education-related requests. However, other parents at Amani and Mwenge responded negatively to pupils' financial requests. This sometime resulted in a caning, as a boy at Mwenge stated. A male pupil at Kwanza similarly shared an example of parents refusing to give money for remedial classes, 'because [parents think] it is a waste of money'. Moreover, some pupils at Amani, Mwenge, Umoja and Baraka could get exercise books, textbooks and pens relatively easily, but other parents at Mwenge were hesitant to make a monetary contribution to the school. Varied responses were thus characteristic within public schools regarding how easily children could negotiate their needs at home. However, the tentative nature of these findings must be acknowledged; it can be difficult to probe individual answers in an FGD involving multiple respondents compared to other methods, such as one-on-one qualitative interviews (Morgan, 1997). Perhaps, deeper probing of pupil narratives might have provided other reasons and/or conflicting priorities that parents had to adhere to.

In addition to the aforementioned indications generally found in both urban and rural public schools, the pupils at rural public schools had the least affluent and harshest lives, seemingly affecting their family relationships. Education carried importance for parents sending their children to rural public schools as with families of the other school categories. Nonetheless, some parents at Baraka and Kisutu reportedly did not help with schoolwork at all. A set of parents at Green blamed a girl for her bad exam score but were not capable of teaching her. Another female pupil at the same school was beaten by her parent because of her poor academic performance. Also, when I asked whether the pupils share toys, books and food equally with their siblings, a girl at Kisutu replied that her home did not have any books. One female pupil at Siha revealed that when she asked her parents to buy school-related equipment, '[t]hey just console me', because the family could not afford it. These narratives gained at rural public schools present a sharp contrast with private school pupils, who could get a computer and were offered opportunities to study abroad. Hence, pupils at urban and rural public schools shared a similar way of relating with adults at home on the one hand, while on the other, the severe financial situation of rural public pupils to a certain extent forced them to just accept what their parents could afford.

Such pupils' narratives generated during this study may imply that the more affluent the families they came from, the more likely that the families would be able to enter into dialogue with children in supporting their educational needs and wants. From the children's perspectives, being accustomed to having their views considered by adults could give pupils from more affluent families the confidence to discuss these matters with adults. Private school pupils expressed their wishes to parents most comfortably among the three school categories. Those at public schools often had to ask for money to participate in school activities, to which their parents reacted in various ways. Some children at rural public schools

rarely interacted with their family members, let alone asked them for favours. How they communicated with adults at home may well be reflected in how they related with adult teachers at schools. This could partly account for the differing influence of corporal punishment on the pupils. Rural public pupils with rigid relationships with their parents may have retained somewhat similar relations with their teachers at school. They did not express their wishes or needs to their teachers due to a fear of being shouted at or struck. Private school pupils, by contrast, may have been accustomed to expressing their opinions both at home and at school. It could be said that differing levels of 'fear toward teachers' may be, to some degree, derived from how they usually communicated with adults at their home, which is located in the culture/society domain of the conceptual framework (Figure 2.1) beyond the school compound.

It is interesting to remember that ANOVA on overall perceived-LCP presented earlier in this chapter revealed significantly higher ratings obtained at private schools and urban public schools than rural public schools. One might hypothesise that how pupils interacted with adults at home and school may be linked to their subjective perceptions of how much they felt that they were centred in the classroom, although it would be difficult to determine a definite correlation between the two.

Box 6 Green School (Rural Public)

Green School was located by a hill by the less maintained roads of rural Dar es Salaam. To reach it, one has to walk through the bush for five minutes from the nearest bus stop. There were no visible schoolboards or gates. Without guidance from local people, it was hard to find the school. Prior to the establishment of the school, the surrounding community carried out education themselves to teach children how to read and write under trees. The government found out how people educated children in the community and supported the building of the primary school approximately a decade after Tanzania's independence.

Green accommodated a vast playground, but with no equipment like balls. Some classrooms were abandoned. The paint was peeling off, and the head teacher suggested that all buildings needed major repair. The school had piped water and a staff room, but nothing else from the list of the nine facilities asked about in the questionnaire. The government had recently built six latrines, but before that, the pupils had to use the bush as a toilet. Six latrines were still not enough for the more than 1,100 pupils at Green. This was the second largest number among the participating 13 schools, and 31 teachers took care of them. A little more than 62% of the graduates had gone on to secondary school for the past three years.

Moyo's Mathematics Class

Because the mathematics teacher of Standard 6 had been absent from the school for two weeks due to sickness, the deputy head teacher Moyo taught the subject during the observed class. The class accommodated the largest number of pupils, with more than 150. They shared approximately 40 connected desks and chairs with four to five peers. They had to squeeze past each other, and some pupils' legs protruded from their chairs. The painted walls with a few cracks had three bag hooks. Many pupils put their bags on their desks, making it hard to take notes. To manage the class and make sure that his voice reached all pupils, Moyo had to speak loudly throughout his lesson. The teacher used a cube, triangle and cone to aid his teaching on the concepts of edge, side and surface.

Showing the cube that he had brought, he started his lesson by asking how many edges it had. Many pupils raised their hands, shouting 'teacher, teacher, teacher' to get his attention. They seemed to be keen to participate in the lesson. After several pupils verbally answered, a few got the chance to count the edges of the real cube. The pupils again competed to be called upon. Moyo then taught them about the concepts of sides and surfaces by means of Q&A. Most interactions were repetition or required yes or no answers, exemplified by the exchange here:

MOYO: How many sides are there?
SOME PUPILS: Twelve.
MOYO: How many sides are there?
ALL PUPILS: Twelve.
MOYO: Okay. One of you said that there are twelve. Thus, how many sides do we have?
SOME PUPILS: Twelve.

The Q&A on how to calculate the surface of the cube followed. A boy in the front row was asked to measure the length of one side. Then, another boy demonstrated the calculation of its area on the chalkboard, though silently.

The teacher moved to the next shapes of a triangle prism, a rectangular prism and a cone. In the same way as with the cube, Moyo asked individual pupils how many edges, sides and surfaces these shapes have. The teacher called for a variety of the pupils from different sections of the classroom. When teaching the formula for calculating volume, Moyo focused on an example in which pupils could use the concept in their everyday lives:

> You can help your mother at home to measure the volume of a water tank. The volume of your water tank. To find the volume, you take the base area times height.

He ended his lesson with a writing exercise for the last five minutes.

Conclusion

This chapter first sought to offer plausible explanations for the act of teaching and the accounts from teachers by focusing on the attendant discourse of relatively contemporary times, in contrast to the historical and epistemological arguments made in Chapter 5. The findings suggested the significance of resource richness, the degree of academic concentration and pupil–teacher relationships in applying LCP in the classroom. Horizontal contrasting of three school categories indicated various factors affecting the extent of observed-LCP implementation differently among the categories. The shortage of educational materials and severe environmental conditions appeared to influence the implementation of LCP at rural public schools the most. Private schools seemed to take academic matters and their accountability to parents more seriously than their public counterparts. It is likely that different factors play a larger or smaller role in obstructing observable acts of LCP depending on localities and school types. The chapter has also brought to the fore the concept of perceived-LCP, or pupils' experiences with LCP implementation. Perceived-LCP implied associations with pupil–teacher and child–adult relationships fostered in spheres beyond the classroom. Specifically, learner-centredness in the classroom and at school may derive from human interactions and socioeconomic family background embedded outside school entities. Rather than how much LCP-associated activities pupils are engaged in the classroom, how teachers and pupils interacted outside the classroom and how children and adults interacted outside schools appeared to matter more to pupils' learner-centred experiences. To probe other associations at the focus of this research, the next chapter analyses relationships between LCP implementation and learning outcomes.

Note

1 Parametric tests such as t-tests and ANOVA are usually used for interval data, with an assumption that the data are normally distributed; they are considered inappropriate for ordinal data, including Likert-scale responses. However, recent discussions on appropriate statistical analysis for ordinal data claim the robustness of parametric tests even for ordinal data (see Norman, 2010; Sullivan & Artino, 2013).

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7 Associations Between LCP and Pupils' Learning Outcomes

The discussion of the act of teaching and the attendant discourse of pedagogy in Chapters 5 and 6 explored several pedagogical elements in the conceptual framework (Figure 2.1): culture, community and history in the culture/society realm; school, curriculum and assessment in the system/policy realm; and teachers, teaching and students in the classroom realm. This chapter turns to one remaining pedagogical dimension, *learning* in the classroom stratum. What pupils learn at school could be the result of their learning experiences at school and at home. Although it may not be narrative, learning outcomes can express pupils' views from a different angle, as the outcomes represent what children gain as a result of their schooling-related experiences. The rationale of the implementation of learner-centred pedagogy (LCP) is that it will bring better learning, but the links between LCP and pupil performance have been arguable, as detailed in Chapter 2.

To facilitate empirical understanding as to whether LCP may translate into better learning, this study examined the associations between observed-LCP, perceived-LCP and learning outcomes. The outcome measurement included academic performance and attitudes towards learning. Although the study did not intend to deduce any causal relationship given the small number of classes observed, I draw on implications for associations between LCP and learning outcomes to contribute to the scant literature on the effectiveness or ineffectiveness of LCP on pupil learning in a low-resource context.

Descriptive Statistics

Before considering the associations among different variables, this section presents the descriptive statistics of key variables, including academic test scores and questionnaire responses related to learning attitudes. The pupils took either a maths or an English test. Maths exam scores ($N = 656$) had a mean of 38.84 and a standard deviation of 24.48, while the English scores ($N = 368$) had a mean of 39.48 and a standard deviation of 30.37.

To make the scores from different exams comparable to each other, maths and English scores were standardised into z-scores ($N = 1{,}024$). Figure 7.1 shows the distribution of the transformed data. More pupil scores fall towards the left tail,

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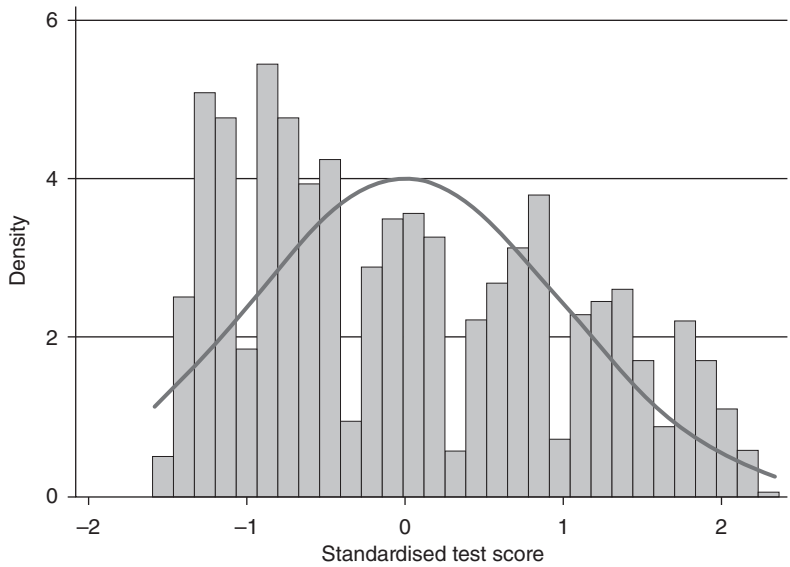

Figure 7.1 Distribution of standardised scores

while some higher scores pull the overall mean towards the right tail. All analyses in the following use this standardised score.

In addition to academic performance tested in the exams, the pupil questionnaire (Appendix 7) measured five dimensions of learning attitudes, involving learning motivation, interest, confidence, ownership and behaviour. The four ordered statements of the Likert-scale – 'disagree a lot', 'disagree a little', 'agree a little' and 'agree a lot' – were coded with values of 1, 2, 3 or 4, respectively. To express an 'overall' score of learning attitudes for each pupil, the median (the middle number in a set of numbers[1]) of all the five dimensions were used.

Of the four Likert scale statements, the pupils overwhelmingly chose 'agree a lot' that they achieved outcomes of motivation, interest, confidence, ownership and behaviour, followed by 'agree a little'. These two together received more than 99% of overall responses (N = 1,016, M = 3.59, Mdn = 4, SD = .52; Table 7.1, Figure 7.2). Specifically, the median for motivation, interest and behaviour lies in 'agree a lot', while confidence and ownership had 'agree a little' as their median. The next section compares the data from observed-LCP, perceived-LCP, academic scores and learning attitudes between schools to unpack whether and in what ways these variables were associated with each other.

Table 7.1 Descriptive statistics for learning attitudes

	Motivation		*Interest*		*Confidence*		*Ownership*		*Behaviour*		*Average of all*	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
	3.8	4	3.6	4	3.4	3	3.1	3	3.8	4	3.6	4
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Disagree a lot	6	0.6	3	0.3	1	0.1	3	0.3	4	0.4	2	0.2
Disagree a little	10	1.0	26	2.6	69	7.0	75	7.6	11	1.1	6	0.6
Agree a little	216	21.8	301	30.3	474	48.0	757	76.8	169	17.1	400	39.4
Agree a lot	761	76.6	662	66.7	443	44.9	151	15.3	804	81.4	608	59.8

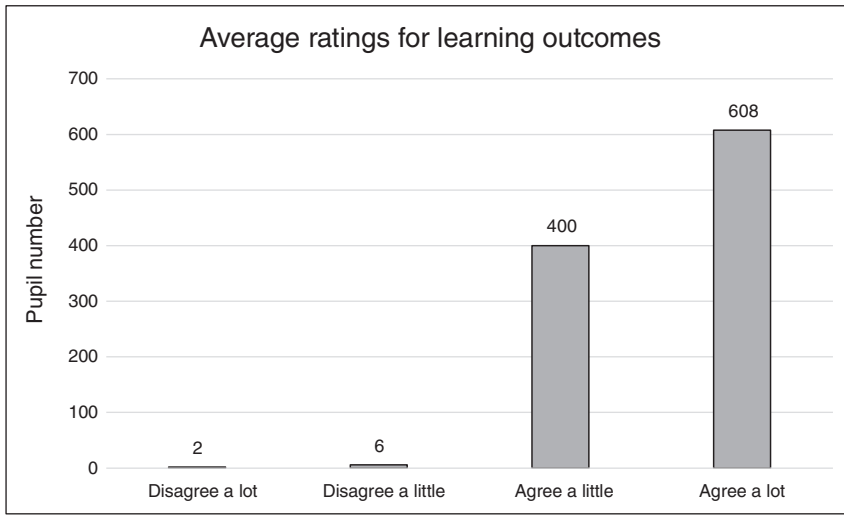

Figure 7.2 Average ratings for learning attitudes

Box 7 Amani School (Urban Public)

The concrete gate of Amani School was unreservedly open. As soon as I entered its compound, well-maintained trees caught my eye. Several potted plants and flowers enclosed the trees. Together they made up a small garden, surrounded by colourfully painted fences. Next to the gate was the head teacher's office with a computer. Built in 2002 in the heart of Dar es Salaam, the buildings were carefully maintained with only minor repair needed. The head teacher's response in the questionnaire indicated that the school had the best facilities of the public schools visited in this study. Of the nine facilities asked about, Amani lacked only a library, a science laboratory and a photocopier. It also accommodated one computer, a rare case in a public school. A little over 900 pupils studied there, taught by 30 teachers. For three years from 2012, around 95% of the pupils progressed to secondary school on average, the second highest percentage among the researched public schools.

Juma's English Class (Stream A)

The English teacher Juma taught an equal number of male and female pupils, totalling close to 50. The classroom was packed with pupils, and the 24 sets of desks and chairs were filled up with them. One light bulb

hung down from the wooden roof, but the sunlight from the window made the room light so that Juma did not need to turn on the electrical light.

Juma started his lesson by introducing the topic of the English phrases 'so . . . that . . .', 'too . . . to . . .', and 'enough . . . to . . .'. The pupils sometimes took part in his explanation by completing Juma's sentences:

JUMA: Maybe you are given examples like, a sentence like 'John is clever'. Because of his being clever, he, this is John, cannot fail. John is?
ALL PUPILS: Clever.
JUMA: He cannot?
ALL PUPILS: Fail.
JUMA: These are two sentences. This one sentence, and this is the other sentence.

The pupils knew when to speak because of Juma's rising intonation. After such interactions with the whole class, lasting for five minutes, the teacher pointed at a small boy sitting in the front row. The teacher asked him his name, and urged the class to agree that the pupil was short. This prompted Juma to make a sentence using a phrase, 'He is too short to touch the ceiling'. The class verbally repeated the example several times.

In the middle of the lesson, Juma directed the pupils to form small groups. They were expected to join two sentences into one by using the phrases 'so . . . that . . .' or 'too . . . to'. For instance, Juma wrote two short sentences: 'Asha is very young' and 'She cannot walk alone'. The task was to produce one sentence using the designated phrases, 'Asha is too young to walk alone'. Yet it was apparent that the pupils forming groups were confused about when and how to discuss. Juma instructed them to *quietly* read the sentences he drew on the blackboard. While the teacher was writing them on the board, some pupils took notes whereas others were barely engaged with any task. Few verbal discussions took place. After he finished writing down the four sentences, Juma asked one group to answer the first problem, assuming that they had already prepared their answer. The group was not ready. He looked a little embarrassed but moved to another group to answer his question. A female pupil gave a correct answer, but she presented on behalf of herself and not her group. Juma continued to call on two other pupils, each of whom answered correctly. The teacher directed the whole class to give these pupils applause. Everyone in unison tapped their hands three times. After around 15 minutes of such interactions, the teacher ended his class with a writing exercise. Juma copied questions from his textbook, and the pupils wrote down their answers in their exercise books until the time had come to end the lesson.

Aisha's Mathematics Class (Stream B)

One of the two female teachers observed, Aisha had taught for 30 years. She had around 50 pupils, two-thirds of whom were male. The classroom felt spacious enough for the number of pupils. There were 27 desks and chairs for a few pupils to sit together, three of which were left empty. The sunlight shone in through crevices in a galvanised sheet iron roof, held up by wooden pillars.

The observed lesson was a repetition of fractional calculus conducted in Swahili. Before the lesson, Aisha arranged the pupils into groups of five to seven so that they faced each other. The greetings with stand-up and sit-down followed. The teacher first called on three male pupils from different groups and told them to recite a multiplication table. She then introduced the lesson topic to review how to calculate fractions. Through individual Q&A, the class went over the process of changing mixed fractions into improper fractions. Aisha posed questions at a quick tempo, to which the pupils seemed to pay attention as they tried to keep up with her fast pace.

The teacher transitioned to a group activity. However, it felt as if it were 'a pretend group discussion' without much exchange of ideas. Aisha told the pupils to solve maths problems on a piece of paper but strongly admonished them not to speak loudly. She uttered phrases like 'shut up!' and 'hurry up!' This meant that the pupils whispered during the group work. Groups who completed the task called Aisha, who came to the table to mark the answers.

A writing exercise followed the group work. The teacher wrote down five questions on the blackboard. Aisha told them to stay in groups during the exercise, but the pupils hardly interacted with each other and independently worked on the questions. More than half of the class time, or about 20 minutes, was spent on this activity. Those who finished the exercise brought their notebooks to Aisha sitting in front; the pupils were then became free to take a break.

Comparing Means of Observed-LCP, Perceived-LCP and Learning Outcomes

Based on the data on learning outcomes (including test scores and learning attitudinal scores), this section first examines the significance of their mean difference by school category; it then compares these with the means of observed- and perceived-LCP, thereby exploring associations between these variables.

All data presented here are analysed at the pupil level (N = 1,024), with pupils' questionnaire responses (perceived-LCP and learning attitudinal scores) and pupils' test scores. Although classroom observation was conducted once for each class (N =17), observed-LCP was also treated as pupil-level data (N = 1,024) by

considering that every child in a class was expected to act similarly in response to teacher directions. Following the approach of Knight et al. (2014) in which observed-LCP scores from 17 classes were matched to perceived-LCP scores for individual students (N = 1,150), this research used a set of observed-LCP corresponding to a set of perceived-LCP, making both types of data pupil-level (N = 1,024). This enabled differentiation of the relationship between observed-LCP and test scores from the relationship between perceived-LCP and test scores[2].

Statistically significant differences in pupils' test scores (N = 1,024) were observed between public and private schools (t = –16.82, df = 1,022, p < .001), as well as between urban and rural schools (t = 13.96, df = 1,022, p < .001). When comparing the three school categories together, pupils in urban public, rural public and private schools showed a statistically significant difference from each other, determined by one-way analysis of variance (ANOVA) (F (2, 1,021) = 316.05, p < .001). Pair-wise comparison based on Bonferroni tests indicated that private school pupils (M = .98, SD = .81) scored significantly higher than both urban public (M = .14, SD = .89) and rural public (M = –.78, SD = .58) school pupils, while pupils in urban public schools obtained significantly higher scores relative to their rural counterparts.

For the ordered variable of pupils' learning attitudes, chi-square tests examined the significance of relationships between these outcomes and school categories. A chi-square test requires at least five counts in each cell, but some cells in the obtained data had less than five due to the skewed distribution (Figure 7.2). Thus, the results presented in the following may not be conclusive, but they give indications as to whether LCP is associated with pupils' attitudes towards learning. Because over 99% of the pupils answered 'agree a lot' or 'agree a little' on average, the report focuses on these two choices.

Between public and private school pupils, 41.6% of the respondents at public schools 'agree a little' with having positive attitudes towards learning, while 29.6% of their private counterparts did so. In contrast, only 57.4% of pupils in public schools compared to 70.4% of pupils in private schools 'agree a lot' to possessing positive learning attitudes. The association between the school type and the outcomes was revealed to be significant, χ^2 = (3, N = 1,016) = 11.72; p < .01. Likewise, a chi-square test between area (urban or rural) and learning attitudes yielded a significant relationship, χ^2 (3, N = 1,016) = 11.52; p < .01. Overall, 38.1% of urban pupils compared to 41.7% of rural pupils 'agree a little', but just 56.4% of rural pupils compared to 61.7% of urban pupils 'agree a lot' to having positive learning attitudes. Moreover, a significant association was obtained when comparing learning attitudes across the three school categories. On average, between the five types of outcomes, 40.0%, 44.1% and 30.0% of urban public, rural public and private school pupils, respectively, 'agree a little' that they had positive learning attitudes; and 59.8%, 53.7% and 70.4% of urban public, rural public and private school pupils, respectively, 'agree a lot', χ^2 = (6, N = 1,016) = 23.74; p < .01. The box plots (Figure 7.3) and Table 7.2 combine the variables individually presented earlier and compare them between the 13 schools.

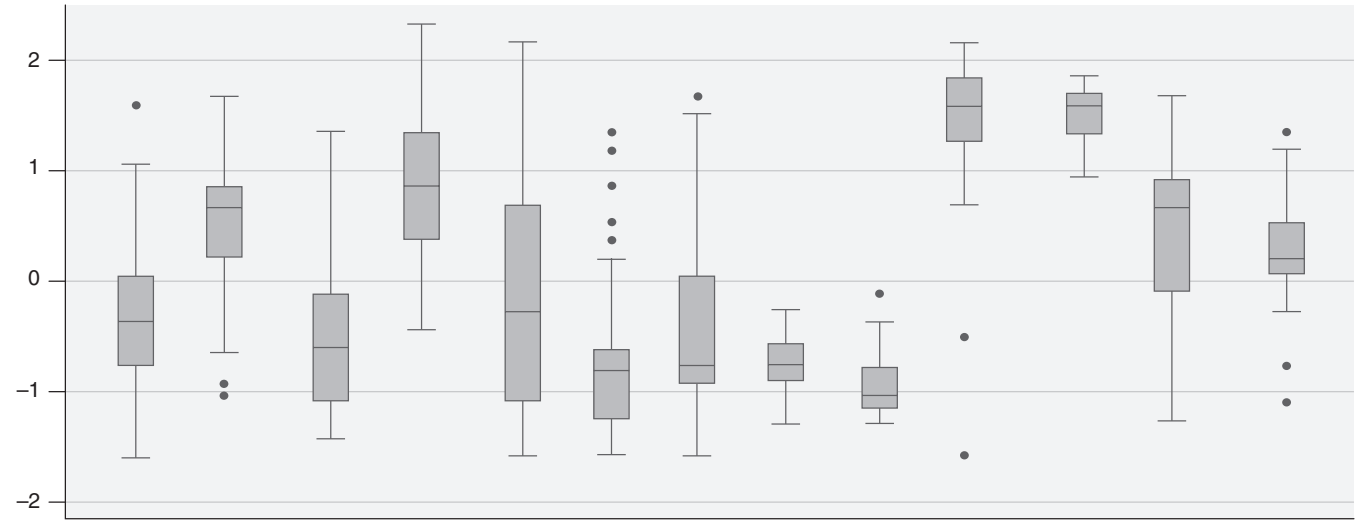

Figure 7.3 Z-score box plots

Table 7.2 Averages for academic scores, attitudinal scores and LCP levels

Category	*Urban public*					*Rural public*				*Private*			
School	Amani	Mwenge	Uhuru	Kwanza	Bunge	Green	Baraka	Kisutu	Siha	Highland	Kawe	St. John	Islamia
Mean *Z*-score	–.35	.59	–.52	.88	–.11	–.82	–.33	–.75	–.97	1.49	1.56	.48	.25
SD of *Z*-score	.57	.57	.68	.67	1.06	.60	.92	.23	.28	.64	.26	.69	.65
Agree	49	52	32	30	39	56	16	19	51	22	8	19	7
a little	40.8%	38.0%	44.4%	34.1%	44.3%	38.1%	40.0%	39.6%	58.6%	39.3%	21.1%	24.7%	38.9%
Agree	71	85	39	58	49	90	23	28	32	34	30	58	11
a lot	59.2%	62.0%	54.2%	65.9%	55.7%	61.2%	57.5%	58.3%	36.8%	60.7%	79.0%	75.3%	61.1%
O-LCP	.11	.30	.05	.23	.44	.22	.10	.00	.00	.02	.00	.11	.23
P-LCP	3.11	3.34	3.31	3.34	2.94	3.09	3.26	2.94	2.83	3.25	3.37	3.47	3.17

Comparing the six variables presented in Table 7.2, observed-LCP did not show consistent relations with the other variables. Pupils at schools with no or very little observed-LCP implementation (Kisutu, Siha, Highland and Kawe) gained test scores at the extreme opposite end of the scale: pupils at Kawe (M = 1.56) and Highland (M = 1.49) achieved the highest performance, while those at Siha (M = –.97) had the lowest score and those at Kisutu (M = –.75) the third lowest. On the other end of the observed-LCP spectrum, pupils at Bunge and Mwenge practised the most LCP-associated activities, yet no consistency in pupil achievement between these two schools was observed: pupils at Bunge (M = –.11) scored a little less than the mean of all pupils, whereas those at Mwenge (M = .59) achieved relatively higher marks among the 13 schools. Likewise, Table 7.2 suggests little consistency between observed-LCP and perceived-LCP. Pupils at Kawe and Highland (with almost no observed-LCP) rated higher on perceived-LCP than any other schools. At the lower-end of perceived-LCP, pupils at Siha and Kisutu in their absence of observed-LCP, and Bunge with the highest observed-LCP, coexisted.

There were some associations between the variables of perceived-LCP and test scores. Pupils at schools with the four highest perceived-LCP (St. John, Kawe, Kwanza and Mwenge) scored higher than the mean of all schools, whereas those with the four lowest perceived-LCP (Siha, Kisutu, Bunge and Green) gained lower than the average test score. Both perceived-LCP and exam performance imply a correlation with the school categories of urban public, rural public and private. This also accords with the ANOVA results on both perceived-LCP and academic levels presented earlier. Private school pupils generally performed better in the test, and rural public schools did relatively poorly. Urban public schools fell between the two but with a greater spread of scores. Perceived-LCP level demonstrated a similar observation. Pupils at private and rural public school dominated the higher and lower ends, respectively, whereas pupils at urban public schools had varied experiences with learner-centredness (Table 7.2). To assess whether and to what extent perceived-LCP and academic achievement systematically co-vary, the Spearman Rho rank-order correlation was carried out. The result showed a positive correlation between the two ($r_s(1{,}007) = .183$, $p < .001$), suggesting that higher ratings of perceived-LCP by pupils correlated with their higher exam scores.

Similar to the comparison with academic performance, learning attitudes (N = 1,024) indicated some links with perceived-LCP but ambiguous relations with observed-LCP (Table 7.2). The schools with pupils indicating the two highest perceived-LCP (3.47 for St. John and 3.37 for Kawe) saw over 70% of the pupils 'agree a lot' to having positive attitudes towards learning. The next cohort of schools with relatively higher perceived-LCP – pupils at Mwenge (3.34), Kwanza (3.34), Highland (3.25) and Islamia (3.17) – also had more than 60% of pupils choosing 'agree a lot' with respect to learning attitudes. In contrast with perceived-LCP, Table 7.2 implies inconsistent associations between observed-LCP time and learning attitudes. At the lower end of

learning attitudes, Siha exhibited one of the lowest scores for all observed-LCP (.00), perceived-LCP (2.83) and the choice of 'agree a lot' for learning attitudes (36.8%). Bunge School, with the second lowest perceived-LCP (2.94) but with the highest observed-LCP (.44), had the third lowest proportion of the pupils (55.7%) 'agree a lot' with their achieving learning attitudes. These results also imply an indicative relation of learning attitudes with perceived-LCP but not necessarily with observed-LCP.

To substantiate this claim, statistical associations between perceived-LCP (N = 1,024) and different dimensions of learning attitudes (N = 1,024) were carried out. Spearman Rho rank-order correlation was used to test associations between perceived-LCP and each aspect of learning attitudes. Among the five dimensions, all but one showed positive correlations with statistical significance: interest ($r_s(982) = .116$, $p < .001$); confidence ($r_s(979) = .278$, $p < .001$); ownership ($r_s(978) = .146$, $p < .001$); and behaviour ($r_s(977) = .120$, $p < .001$). There was an insignificant correlation between perceived-LCP and motivation, $r_s(984) = .046$, $p > .149$. Bringing together the five aspects of learning attitudes by taking the median of all responses, Spearman Rho rank-order correlation observed a significantly positive relationship between the perceived-LCP level and the learning attitudinal scores, ($r_s(1{,}003) = .153$, $p < .001$). These results imply a tendency that the more frequently pupils felt that they experienced LCP in classrooms, the more positive attitudes they possessed towards learning.

Relationships between observed level of LCP and each of the five aspects of learning attitudes were also explored. Spearman Rho rank-order correlation indicated insignificant relationships of observed-LCP with all five dimensions: motivation ($r_s(993) = .04$, $p = .21$); interest ($r_s(992) = .06$, $p = .06$); confidence ($r_s(987) = .04$, $p = .24$); ownership ($r_s(986) = -.05$, $p = .13$); and behaviour ($r_s(988) = .03$, $p = .35$). These results imply that higher observed-LCP does not necessarily contribute to positive learning attitudes. However, the 'overall' score for learning attitudes revealed a statistically positive correlation with observed-LCP, ($r_s(1{,}017) = .09$, $p < .01$). The discrepancy between the individual and overall scores for learning attitudes in their relationships with observed-LCP might imply inconsistent relationships between observed-LCP and learning attitudes.

Overall, there seems to be little consistency in observed-LCP in relation to achievement score, learning attitudes or perceived-LCP. On the contrary, a statistically significant correlation was consistently found between perceived-LCP and test score and between perceived-LCP and learning attitudes. However, the apparent non-existence or existence of statistically significant relationships may depend on a third variable. Given that both perceived-LCP and exam performance are seemingly related with the school categories of urban public, rural public and private, variables associated with these categories may confound the relationship between the two variables. Multiple regression analyses sought to determine associations between these variables, while controlling for possible confounding factors.

Box 8 Islamia School (Urban Private)

Another religious private school in Kigoma, Islamia, was set up at the end of the 20th century and followed Islam as its school policy. A security officer stood at the gate, but a brief explanation of my visit was enough for him to open it. As soon as I passed through a parking area, colourfully painted buildings caught my eye. Flourishing flowers and plants in the school garden added liveliness to the school. Open-air corridors were carefully swept. Islamia did not have a telephone or photocopier but had seven other facilities asked about in the head teacher questionnaire, besides 30 computers. The head teacher reported no need for repairs of the school buildings.

The vast playground gave plenty of space for roughly 200 pupils – the smallest number among the researched schools – to play and move around. Nine-tenths of these children had an Islamic background. In contrast, many of the teachers did not follow the religion, partly because half of them came from the neighbouring countries of Kenya and Uganda. Because some of these teachers spoke English but not Swahili, the pupils had to communicate with them in English most of the time at school. All graduates from 2012 to 2014 went on to secondary schools.

Rashid's Mathematics Class

A male mathematics teacher, Rashid, was one of the teachers from Uganda and did not speak Swahili. His class accommodated the smallest number of pupils compared to other classes observed, with less than 20. Their desks were designed for two pupils to share, but they sat on individually separated chairs next to peers of the same gender. The walls in the classroom were painted in blue and white and contained a few teaching materials including a world map, a table of English tenses and pupils' exam scores. Held at the end of the term, Rashid's lesson reviewed how to calculate fractions.

The lesson started punctually with a bell. The teacher, calmly standing in front, went through how to calculate improper fractions using Q&A. Simple repetitions of his words occupied the pupil–teacher interaction, as exemplified by the extract here:

RASHID: So, in addition, we have . . . we said we have proper and improper what?
ALL PUPILS: Fraction.
RASHID: Proper fraction and improper what?
ALL PUPILS: Fractions.
RASHID: Fractions. Okay?
ALL PUPILS: Yes.
RASHID: So, we learn about proper what?

ALL PUPILS: Fraction.
RASHID: Fraction. I think we are given a number in improper what? Fraction. It's improper what?
ALL PUPILS: Fraction.

In this chunk of communication, the only word uttered by the pupils was 'fraction', where they did not engage in thinking, but rather merely repeated what Rashid had stated. The teacher seemingly expected the pupils to complete his sentence, and the pupils knew when and what to say.

After Rashid explained what a fraction is and demonstrated how to calculate its addition, he called on a male pupil to solve an example in front of the class. In contrast to pupil demonstration at other schools, the pupil described the process by himself without interacting with other classmates. Rashid then checked with the class whether the pupil's answer was correct and moved on to focus on mixed fractions. He explained how to solve these in a similar manner to the aforementioned excerpt. To let a pupil present the calculation of mixed fraction, Rashid called on the same boy to demonstrate. In the middle of his solving of the problem, the teacher gave a hint while the boy was explaining. Rashid then asked a female pupil to demonstrate another example, and she silently showed the problem-solving process on the chalkboard.

The next activity was a writing exercise. Rashid copied a problem from his textbook and allowed five minutes for the pupils to complete the exercise. The pupils solved it in dead silence, and the teacher circulated to mark their answers. A boy who got a wrong answer was asked to calculate the problem in front of the class. As he could not reach the correct answer, even with the support of the teacher, Rashid took over and showed the problem-solving process. At the end of the class, the teacher concluded with a simple review of the lesson, 'We have seen the addition fraction, improper fraction, proper fraction and mixed what? Fraction'. Throughout the class, there was no shouting or physical punishment observed, and Rashid taught steadily with confidence.

Associations Between Observed-LCP, Perceived-LCP and Academic Performance

Multiple linear regressions investigated the associations between LCP (observed and perceived) and pupils' academic achievements (Table 7.3).

Both observed- and perceived-LCP indicated significant positive relationships with academic performance, with the former at the 0.05 level (model 1) and the latter at the 0.01 level (model 2). Together they explained around 5% of pupils' test scores (model 3).

Models 4 and 5 adjust for school-level factors with school types (public or private) and area (urban or rural). Pupils in private schools (compared to those

Table 7.3 The relationship between observed-LCP, perceived-LCP and test scores

	(1)	*(2)*	*(3)*	*(4)*	*(5)*
Dependent variable: Pupils' test scores					
Observed-LCP	0.545		0.539	1.664	0.873
	[2.51]**		[2.51]**	[8.55]***	[4.29]***
Perceived-LCP		0.356	0.361	0.284	0.217
		[6.61]***	[6.71]***	[6.10]***	[4.82]***
School type (Public)				1.342	1.153
				[18.70]***	[16.15]***
Area (Urban)					-0.571
					[-9.67]***
Constant	-0.089*	-0.795***	-0.895***	-1.155***	-0.636***
Observations	1023	1006	1006	1006	1006
F-statistics	6.29**	43.70***	25.11***	139.15***	137.37***
Adj R-squared	0.005	0.041	0.046	0.292	0.352
RMSE	0.997	0.977	0.975	0.840	0.803

Note: *** $p < 0.01$ ** $p < 0.05$ * $p < 0.1$. Parenthesis: reference category

in public schools [model 4]) and pupils in urban schools (compared to those in rural schools [model 5]) obtained higher scores on average. In both models, both types of LCP (observed and perceived) remained significant, suggesting that the more LCP-related practices were observed in classrooms and the more the pupils felt they were experiencing learner-centredness in everyday classrooms, the higher their test scores. Overall, perceived-LCP demonstrated significant associations with pupils' test scores consistently at the 0.01 level, while observed-LCP sometimes showed significance at the 0.01 level but at other times at the 0.05 level. Hence, the regression results suggest that both pupils' perceptions of the classroom experience and the observable act of teaching seem to be important factors for pupil learning, with the former indicating stronger relationships with pupils' academic achievement.

Conclusion

To conclude the implications drawn from data on the level of LCP implementation and learning outcomes, pupils' academic outcomes and learning attitudes varied between schools. The pupils at private schools outperformed those at public schools on English and mathematics exams. Among public schools, urban schools achieved significantly higher test scores than rural schools. Attitudes towards learning showed similar results. Private pupils compared to public pupils, and urban pupils compared to rural pupils, significantly highly rated their learning motivation, interest, confidence, ownership and behaviour. The variability of these learning outcomes was statistically associated with perceived-LCP, which was suggested by the Spearman Rho rank-order correlation for academic performance and for learning attitudes. Conversely, observed-LCP showed inconsistent relationships with different types of learning outcomes.

The associations between LCP and learning outcomes were further explored through multiple regression analyses. Both observed- and perceived-LCP showed significant relationships with pupils' test scores, but the latter demonstrated seemingly stronger associations. Likewise, according to Spearman Rho rank-order correlation, perceived-LCP indicated more consistent relationships with the five dimensions of learning attitudes, while the relationships between observed-LCP and learning attitudes fluctuated depending on the dimensions.

Considering that perceived-LCP showed significant associations with pupil performance and learning attitudes more consistently than observed-LCP, attending to observable teaching practices alone in pedagogical research seems insufficient. The results from statistical associations support what has been argued in the previous chapters, in that LCP occurs not only within classrooms but also in learner-centred experiences derived from holistic schooling experiences together with wider social practices. The conceptual framework would portray this notion; constituents within the culture/society and system/policy can affect pupils' feeling of centredness in the classroom, and observed-LCP alone seems to play a less significant role. It is the attendant discourse that justifies the teaching act, and not the other way around. The results from the horizontal exploration have illuminated this cultural and social embeddedness of pedagogy. The next chapter integrates what has been presented in Chapters 4–7. The findings and analysis situated across the three layers of the conceptual framework (Figure 2.1) and across the three axes of the comparative case-study framework (Figure 3.1) will be reorganised, shedding light on how this book can take the field forward.

Notes

1 Medians are considered to be the appropriate measure of the central tendency for ordinal data such as the Likert-scale responses.
2 I nonetheless acknowledge a methodological limitation of this approach, in that observed-LCP – which varied between classes (N = 17) – was treated as individual-level data (N = 1,024). Observing each pupil separately and matching their observed-LCP data with their perceived-LCP data could have generated a more accurate representation of observed-LCP as pupil-level data. This study, however, attempted to extend the limits of conventionally conceptualised LCP by applying an alternative means of perceived-LCP in association with pupils' achievement.

Reference

Knight, S. L., Parker, D., Zimmerman, W., & Ikhlief, A. (2014). Relationship between perceived and observed student-centred learning environments in Qatari elementary mathematics and science classrooms. *Learning Environments Research*, *17*(1), 29–47. https://doi.org/10.1007/s10984-014-9156-z

8 Cross-Case and Cross-Axial Synthesis

Pulling together the findings and analyses discussed in Chapters 4–7, this chapter demonstrates how this research could take the field forward. Chapter 4 transversally and vertically situated the research. It explored, across time and space, intersections between legacies of indigenous education; legacies of educational development under Nyerere; policy diffusion of Western-oriented learner-centred pedagogy (LCP); and the current international and national embracing of LCP. Chapter 5 utilised these transversal and vertical axes to provide historical and epistemological insights into data on *teachers* and *teaching*, as observed in the contemporary classrooms of Tanzania. Employing the horizontal axis, Chapter 6 compared the observed phenomena between different schools by centring on the attendant discourse of modern-day issues, thus exploring pupils' perceptions towards LCP. Chapter 7 then addressed the under-researched areas of possible associations of LCP with learning outcomes.

Here, I integrate these results and discussions. I first highlight the significance of pupils' perspectives when examining LCP implementation and, more broadly, in education research. After considering the importance of children's voices, I bring the research findings together while focusing on how their views may have contributed to producing the results and interpretations in this study. In doing so, I incorporate the conceptual, methodological and analytical frameworks that were applied to the discourse used within this book. This integration and summary of the findings will lead to a re-conceptualisation of the notion of *pedagogy* and its conceptual framework (Figure 2.1). I emphasise the multidimensionality of pedagogy, which then prompts a discussion about how the continuing global endeavour for implementing LCP should be pursued, or not.

Significance of Pupils' Experiences for Examining LCP Implementation

Throughout this book, I have argued that the existing knowledge of LCP implementation in the global South has excluded children from its research. This seems to partly result from a narrow conceptualisation of 'learner-centredness'. The dominant literature tends to equate the term 'learner-centred

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pedagogy' with *the observable act of learner-centred practices*. This way of conceptualising LCP appears to have led most studies to explore only *teaching practice*, factors *related to observed-LCP* or the interpretation of research findings *in relation to observed-LCP*. Furthermore, these facets were investigated prevalently only through one actor considered within LCP, the teachers.

Findings from prior research suggest implementation failure, leading researchers to criticise international efforts to spread LCP (Schweisfurth, 2011; Tabulawa, 2013), but the empirical evidence for desisting with LCP implementation has accumulated predominately at the observable level. Commonly cited barriers related to LCP from observed activities, according to available evidence, include: resource shortage (Altinyelken, 2010; Pontefract & Hardman, 2005); reliance on high-stake, memorisation-based exams (Bartlett & Vavrus, 2013; Frost & Little, 2014); and cultural differences (Hardman et al., 2008; Harley et al., 2000). Consequently, the empirical claim as to why LCP has not been appropriated in low-income countries may have relevance only to the implementation of observable LCP. What this actually means is 'little *observable* implementation of LCP', while omitting other perceptions and experiences, particularly from the standpoint of pupils.

An attempt to collect, analyse and interpret only directly observable behaviours would foster epistemological and methodological pitfalls. Norum (2008) claims that what a researcher observes and reports yields only one perspective, and this perspective is not objective. Bryman (2016) adds to this point, stating that an overt behaviour does not necessarily express the meanings, reasons or intentions behind the behaviour. In the case of this study, what I as a researcher could observe within a preconceived framework of LCP and teacher-centred pedagogy (TCP) would not capture the reality that the participants subjectively perceive and experience. In a policymaking context, a policymaker's understandings of LCP-related activities may not accurately represent teachers' or pupils' enactment of and encounters with learner-centredness in the classroom. Furthermore, seeking factors to explain and interpret *only* observable behaviours would face similar methodological and analytical problems. A researcher's attempt to explain why a behaviour occurs would limit their empirical investigation so as to make it relevant only to the observed behaviour. For instance, Abd-Kadir and Hardman (2007) attributed reasons for scarce LCP implementation to the lack of facilities and traditional seating arrangements. Altinyelken (2011) cited inadequate teacher training and a rigid examination system to make sense of a similar phenomenon. These factors may explain why LCP-related practices were hardly observed in the classroom, but they do not consider participants' interpretations of and experiences with LCP. How pupils were perceiving classroom teaching and learning, and why they perceived their experiences in a particular way, has scarcely been examined in existing research. Thus, the tendency to attend to observed-LCP alone seems to have led the literature not to look for factors related to subjective experiences, particularly learners' experiences of LCP implementation.

Having borrowed epistemological and ontological lenses from the constructivist paradigm as outlined in Chapter 2, this book has sought to uncover varied understandings of and experiences with LCP implementation by key beneficiaries of schooling, namely teachers *and* learners. Norum (2008) justifies the application of constructivism in research:

> Those who participate in the study provide additional perspectives. Each person who participates in the study provides a different view on the topic being investigated. Each brings his or her own assumptions, beliefs and perspectives.
>
> (p. 739)

The constructivist paradigm supposes ontological relativism, such that people belonging to different social groups are seen to perceive the same phenomenon distinctively. Absolute reality does not exist with truth being constructed socially and subjectively.

In accordance with the constructivist ontology, this study has been committed to ontological triangulation through gathering data from both teachers and pupils. Specifically aiming to add pupils' viewpoints to existing knowledge on LCP implementation in the global South, the research collected three forms of data from them: quantitatively measured perceived-LCP; qualitatively explored accounts from focus group discussions (FGDs); and quantitatively tested academic performance and learning attitudes. The pupil questionnaire sought pupils' subjective experiences of learner-centredness in the classroom. The research also pursued explanations for the results of both observed- and perceived-LCP with qualitative data from the FGDs. Lastly, it intended to uncover how and what pupils had learned under the ongoing LCP implementation.

The study, similar to prior research, found plausible obstacles to LCP implementation, including resource shortage, fact-based national exams and cultural and historical contingencies. By differentiating perceived-LCP from the observable practices of LCP, this book casts new light on the possibility that these barriers may have differently affected observed-LCP and perceived-LCP. Some aspects seemed to be associated more with observed-LCP but others more with perceived-LCP, which I explain in the next section. Moreover, some pedagogical elements depicted in the conceptual framework became accessible only by investigating pupils' perceptions. For example, many pupils in the FGDs (but no teachers in their interviews) reported corporal punishment happening at school. Familial communications and family situations were also explored through discussions with pupils.

What follows is an integration of the conceptual framework (Figure 2.1), the comparative case-study (CCS) framework (Figure 3.1) and the embedded multiple case design (Figure 3.2). This integration summarises the findings presented in the previous four chapters. It also seeks to elucidate how conceptually separating observed-LCP from perceived-LCP and focusing on children's viewpoints in addition to those of the teachers may add new insights to existing knowledge.

Box 9 Kisutu School (Rural Public)

The school board and buildings of Kisutu in Kigoma looked fairly new, but it soon became clear that these did not belong to the school. The government had started building Kisutu two to three kilometres away from where I visited. Ten years of construction work had not produced adequate school buildings, and Kisutu had to rent classrooms from a neighbouring school. The pupils and teachers had to travel further from their home, resulting in truancy from some children. The school compound Kisutu rented had only a playground but no other facilities, including piped water or electricity. The head teacher at Kisutu had looked for sponsorship to continue construction, but NGOs tend only to fund small fees such as books, desks and teacher training. Kisutu had not secured funding to construct seven to eight classrooms for roughly 230 pupils and 12 teachers. The past three years had seen about 86% of the graduates continuing to secondary education.

Abdu's English Class

Although the classroom did not belong to Kisutu, it offered enough space and equipment for about 50 pupils. They shared 25 connected chairs and desks with two or three peers to each sitting in rows. The room did not need light thanks to the bright sunlight. The English teacher Abdu had just started his teaching career. Abdu taught how to make past sentences using the preposition 'for'. A period of silence of 1.5 minutes followed his greeting. Abdu wrote on the board, 'Using the word "for" to express the time on the past'. This led him to verbally introduce the topic, followed by repetitions by the pupils:

ABDU: Right, today we are going to teach the usage of the word 'for'. So, our topic . . . our main topic is expressing duration. Class, what? Say expressing duration.
ALL PUPILS: Expressing duration.
ABDU: Expressing duration.
ALL PUPILS: Expressing duration.
ABDU: Loudly. Expressing duration.
ALL PUPILS: Expressing duration.

Abdu then explained the topic in more detail but in a little confusing manner:

> So, we are going to use the word 'for' to express a time. The word 'for' is used to express . . . to express the time or the known time. Or another word, we say to express the known . . . the known time. The

word 'for' is used to express the noun time, the time which is known, but in the past. Class, are we together?

The pupils' affirmative answer in unison came next. Abdu demonstrated how to use the word 'for' to express the past. With an example sentence, 'Juma was waiting Asha for ten days ago', Abdu explained that 'ten days' is a 'noun time' that is countable. He then turned to the class and asked them to add more examples. A boy gave, 'I have eaten food, comma, for ten minutes ago'. Despite the awkwardness of this sentence, Abdu responded with praise, directing the rest of the class to congratulate him with chanting. A female pupil gave another example, 'Enjo has been studying Swahili, comma, for two seconds ago'. Abdu added an extended explanation that her sentence successfully expressed the past time using the word 'for'.

After having one more pupil present his sentence, the teacher gave the class an exercise to make four sentences using the word 'for' to express time. He checked if the pupils understood the task, to which some of them answered 'no'. Abdu's ears caught the word. He told them five times to raise their hands if they understood. No one raised their hands at first, but as the teacher continued asking the same question, more and more pupils gradually responded positively. At the end, the whole class expressed that they understood the task, allowing the teacher to conclude that there was no need to explain the exercise again. Abdu intended to ensure their understanding, but the way he did so seemed to force the pupils to respond with 'yes'. Abdu gave eight minutes for the pupils to complete the sentences, and ended his lesson after he corrected the pupils' answers individually.

Integrating the Conceptual Framework, the Comparative Case-Study Approach and the Embedded Multiple Case Design

The conceptual framework (Figure 2.1) theoretically mapped out this study. The outer stratum legitimates, or precedes, what happens in the interior domains. It is culture, community, self and history in the culture/society sphere that shape how school, curriculum, assessment and policies are organised in the system/policy layer; these elements then inform teaching and learning, as constructed through interactions between teachers and students in the classroom domain. To examine these various pedagogical elements sitting in each of the three strata of the conceptual framework, the book has applied the CCS approach as a methodological and analytical tool. Its transversal (situating cases historically), vertical (analysing policy implementation across scales) and horizontal (comparing cases between different locations) axes explored the traveling feature of LCP across time and space, with respect to various policy levels and localities.

Table 8.1 encapsulates the findings on characteristics of different case categories (urban public, rural public and private) in relation to the LCP principles.

Table 8.1 Summary of findings

Layers in conceptual framework	*CCS axes*	*Pedagogical dimensions*	*Private*	*Urban public*	*Rural public*
Culture/ society	Transversal	History	Educational development in Tanzania Succession of epistemological standpoints		
(Culture, community, self, history)	Horizontal	SES	High	Varied	Low
		Child–adult relationships	More democratic, closer	Varied	Rigid, less communication
System/ policy	Vertical	Policy transfer	LCP policy framework transmitted from international to national		
		National examination	Stress on factual answers		
(School, curriculum, assessment, other policies)	Horizontal	Opinions on national exam	Responsible for pupil achievement	Relaxed	
		Academic emphasis	High	Low	
		School–parent relationships	Service provider and customer	Partner	
		Curriculum flexibility	Rigid	Sometimes negotiable	Unclarified
		School activities	Few sports, no/small playground, few breaks, holiday lessons	Have playground, more teachers play with pupils outside classroom	
		School conditions	Well-facilitated, no/ minor repair needed	Minor/major repair needed	Harshest condition (no building, extreme lack of toilet)
		Teaching resources	Adequate	Varied	Minimalist
		Pupil–teacher relationships	Less hesitation to express opinions	Varied	Pupils afraid of teachers
		Corporal punishment	Prevalent regardless of school categories		
Classroom (Students, learning, teaching, curriculum)		Observed-LCP	Middle-low	High	Middle-low
		Perceived-LCP	High	High	Low
		Academic achievement	High	Middle	Low
		Learning attitudes	High	High	Low

Arranged by the three domains of the conceptual framework and the three axes of CCS, the table presents which axis examined which pedagogical dimensions in each domain of the conceptual framework. This tabulation aims not to generalise the characteristics of each school in the case categories but to indicate their tendencies. Some characteristics hence may not apply to all schools within the same category. In addition, the characteristics under one category are stated relative to other categories. For example, the table suggests that private schools had 'high' academic emphasis. This means that they showed 'relatively higher' academic focus compared to their urban public and rural public counterparts. In each sphere of the conceptual framework – and particularly along the horizontal line of the CCS – the viewpoints and accounts of pupils illuminated pedagogical factors seemingly linked with observed-LCP and/or perceived-LCP.

Transversal and Vertical Analyses in Culture/Society and System/Policy Strata

In the outermost layer of the conceptual framework, culture and/or society, the transversal axis of the CCS approach attended to the historical facets of pedagogy (Table 8.1). This book began with the premise that Nyerere's *ujamaa* model and accompanying educational development under Education for Self-Reliance (ESR) would have offered a consonant base for LCP implementation. Learner-centred principles endorse democratic student–teacher relationships, individualised learning, learner independence, learning through activities and social interactions. Nyerere endeavoured through ESR to break down boundaries between schools and communities and to make curricula relevant to everyday life (Lema et al., 2004). Learning by doing with peers, and practising democracy through discussions and negotiations, also topped his educational agenda. As such, the *ujamaa* model initially may have appeared, on the surface, to be compatible with LCP beliefs.

How does this seemingly consonant ideological base play out in the midst of international and national efforts to implement LCP today? In the system/policy row of Table 8.1, the vertical investigation explored policy diffusion processes of the LCP tenets throughout low-income countries (Chapter 4). With the launch of Education for All (EFA), the pedagogical reform supporting LCP and discouraging TCP has expanded across low-income nations. Terms such as 'participatory methods' (UNESCO, 2017, p. 18), 'active and collaborative pedagogical approach' (UNESCO et al., 2015, p. 8) and 'child-centred teaching and learning processes' (UNICEF EAPRO, 2006, p. 18) have gained popularity in policy documents. The vertical analysis of these documents recognises their narrow conceptualisation of pedagogy as relating only to the observable act of teaching. The major international educational frameworks – including EFA, child-friendly schools (CFS), Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs) – outline how teachers should act, or at best how they should be trained. Few accounts are made of learning, learners, cultural values, customs, pupil–teacher relationships and so on. The Tanzanian government, as the recipient of these vertically transmitted global

policies, pursues the international recommendations in its national agenda, with a prioritised focus on observable LCP practices. The LCP policy discourse at international and national levels does not engage substantially with the pedagogical elements attached to the attendant discourse, which involves a variety of pedagogical dimensions (Figure 2.1). The tendency of policymaking to reduce pedagogy to a mere teaching method may reflect their implicit assumption that, as long as LCP-related activities were *observed* in the classroom, LCP implementation would be successful.

The empirical findings from this study revealed rather contradictory results with these policy expectations transversally and vertically diffused. In the classroom stratum of the conceptual framework, horizontal investigation did not capture the observable act of LCP-related teaching to which policymakers aspired at both international and national levels. TCP-related activities dominated the lesson time across the 13 participating schools, with less than one-fifth of teaching time accounted for by LCP-related activities. The pupils mostly watched and listened to the teachers and were independently engaged in writing exercises. No activities adjusted to individual pupils took place. Hardly any pupils initiated talk or questioned teacher knowledge: they acted as passive recipients of knowledge, instead of knowledge constructors as advised by LCP proponents (Swardson, 2005). Thus, the study findings ran counter to the international and national policy recommendations. They also fell short of my supposition outlined, at the beginning, that Tanzania would have nurtured a consonant ideological base with learner-centredness.

The limited implementation of LCP revealed in this research would comply with existing research in Tanzania at the *observable* level. To compare teachers' beliefs about 'good teaching' with their actual classroom practices, Barrett (2007) observed and interviewed teachers at two schools in the Shinyanga and Pwani regions. Her findings suggest a disparity between the two. The teachers valued participation, personalisation and praise, but they did not apply the principles of good teaching to their lessons. Another ethnographic study, conducted by Vavrus (2009) at a teacher-training college in Tanzania, observed a similar phenomenon to that seen in Barrett's (2007) and my research. The student teachers showed an understanding of the LCP principles after a series of teaching sessions on constructivist pedagogy. However, they did not execute their knowledge in the real world of the classroom, because they 'did not have a *cultural framework* in which to place the discourse and methods' (Vavrus, 2009, p. 306, emphasis added). A cultural framework, or the attendant discourse in Alexander's (2004, 2008) term, legitimates and supports teachers in applying LCP discourse and practices. It involves, for example, the teachers' own experiences of being taught with LCP, an education system requiring pupils to construct knowledge, adequate teacher training and necessary resources (Vavrus, 2009). Chapters 4–7 of this book have identified several dimensions that would disagree with the cultural framework of LCP. One such aspect crucial for all 13 schools involves a culturally appropriate view of knowledge and that of human relations in Tanzania, which the 'transversal' row in Table 8.1 indicates.

Tanzanian culture seems to possess a view of knowledge distinctive from the constructivist epistemology viewpoint, as detailed in Chapters 4 and 5. The transversal inquiry illustrated that people in Tanzania have traditionally considered knowledge to be predetermined and unquestionable (Cameron & Dodd, 1970; Coulson, 1982). Values, beliefs and customs had to be passed on from generation to generation. This view aligns well with the rationalist epistemology underpinning TCP. Reality exists independent of the knower, whose experiences and perceptions do not count as knowledge (Davis et al., 1993). This rationalist view of knowledge has brought about a child–adult power imbalance stemming from hierarchical, as opposed to democratic, human relationships. In the learning settings of indigenous Tanzania, adults became knowledge possessors with authority, and learners acted as knowledge recipients. Although Nyerere encouraged the practice of democracy in schools, the literature suggests that the participation of pupils in curriculum planning or decision-making processes did not happen (Lema, 2006).

Classroom interactions in the current study appeared to reflect a transversally inherited epistemology. Classroom processes represent a co-constructed reality between teachers and pupils. The teacher is not the sole controller of classroom ambience, but students' expectations, attitudes and feelings towards their teacher influence how both agents act and interact within classrooms (Tabulawa, 2013). The analysis of classroom observation in this study incorporated the perspectives of both groups of agents. Few pupils posed questions to the teachers or initiated their own learning. Teachers' checking of pupils' understanding ended up as pseudo-checking, with few pupils expressing any incomprehension. Pupils frequently responded to teachers' initiation by means of whole-class responses, as if the answers were made obvious to endorse successful knowledge transfer from teachers to learners. These exercises echo the traditional practices of a master–learner relationship. Learners could never question or challenge the knowledge of adults and had to remember what the adults transmitted (Cameron & Dodd, 1970). The pupils and teachers may have acted according to their epistemological position and with respect to social norms about interactional patterns, sometimes to 'sav[e] the face of teachers' (Wedin, 2010, p. 148). When a transversally formed cultural framework meets the vertically transmitted LCP policies underpinned by constructivist epistemology, the latter would result in a new, localised policy divergent from the original intention, as was horizontally examined.

Box 10 Mwenge School (Urban Public)

Mwenge School in Dar es Salaam has a long history. The British Government established the school a decade before independence. It was originally intended to educate African pupils as government servants and other white-collar workers to deliver and implement colonial policies. The historical legacy has remained; the head teacher reported that many parents

of the pupils had white-collar jobs and seriously cared about the education of their children.

Albeit without any security personnel, a concrete wall and gate hid the school completely from the outside. This was uncommon at a public school; the gate at Amani was unreservedly open, and other public schools did not have any. Nonetheless, one push of the heavy gate opened it easily. As soon as I stepped into the school, a vast compound and well-painted buildings spread out in front me. Some classrooms were painted with animals, and others were decorated colourfully. School gardens scattered around the playground contained blooming flowers and well-tended garden plants. Mwenge also had a few water tanks visible in the playground. These views gave me an impression of affluence and adequacy as a public school. Responses to the head teacher questionnaire confirmed my impression. The school had five out of the nine facilities enquired about. It even had a counselling room. In the semi-structured interviews, both the English and the mathematics teachers mentioned that the pupils could discuss their personal problems with a specialist counsellor. With the relatively adequate equipment, the school accommodated the largest number of pupils, around 1,800, with an almost equal gender balance. Forty-five teachers looked after them. The transition rate to secondary education resembled Amani School at approximately 97% over the past three years.

Jamba's English Class (Stream A)

Holding a university degree, Jamba was almost fluent in English. Close to 60 pupils used 25 connected desks and chairs together, mostly sharing with those of the same gender. An extra nine sets of desks and chairs at the back were left empty. Under the natural sunlight from the window, the pupils waited quietly for Jamba's lesson to begin.

After introducing the lesson topic (the simple present tense), Jamba asked the class to explain its usage. A boy responded, and the teacher repeated and expanded as shown here:

JAMBA: That is happening every day, every time, every month, always. We do . . . we repeat every day. We use simple?
JAMBA & ALL PUPILS: Present.
JAMBA: For example, we mainly use I . . .
JAMBA & ALL PUPILS: Me, you, they, she, he, it.
JAMBA: We show a usage of simple?
JAMBA & ALL PUPILS: Present.

From Jamba's intonation and pitch, the pupils were aware of what to do – to continue Jamba's sentence. In the next chunk of interaction, Jamba

used the same verbal cues. The pupils replied appropriately as a whole class, which seemed to be the usual and natural manner. However, Jamba denied their response and unexpectedly sought individual answers:

JAMBA: When we use simple present, word changes. For example, if I use a word 'go', I, the first person, singular 'I, we, you, they', the word doesn't . . . does . . . the word change or remain infinity?
ALL PUPILS: Infinity.
JAMBA: Oh, no, no, no, no, I don't like general answer. I want someone to stand up and speak. What do you know the . . . about the changes here? Does it change or remain infinity? Anyone? Try.

Some pupils timidly raised their hands, and a girl answered, 'Infinity'. This communication sounded like the teacher was forcing the pupils to interact with him individually rather than using the one-to-mass communication which appeared to be common in everyday lessons. This indicated that my presence may have affected how Jamba acted.

Jamba then sought for adverbial expressions used with the simple present. Words like 'normally', 'always' and 'sometimes' were heard from the floor. The class reviewed the change in verb forms, such that 'go' becomes 'goes'. Then, another occasion where Jamba implemented a seemingly unexpected activity happened. The pupils looked blank:

JAMBA: Can anyone construct a sentence by using this 'watch'?
SOME PUPILS: Yes.
JAMBA: Try. [A few seconds of silence.] In your groups, in your groups. Let's construct a sentence by using what?
JAMBA & A FEW PUPILS: Watch.
JAMBA: Okay, you may collaborate. This desk and this one, and this desk and that one.

The pupils followed Jamba's order, moving around and facing each other, but rather awkwardly. The teacher emphasised that, 'You have to cooperate. Everybody must . . . must participate. This is the group work'. Groups of four to five pupils discussed and constructed sentences using 'watches' and 'catches' for approximately five minutes. Pupil demonstration followed. Two groups presented their sentences on the blackboard, after which Jamba asked the class whether the answers were correct. Some pupils said 'yes' while others uttered 'no'. The teacher picked up on those who responded negatively and inquired the reason for the mistake, but because they could not answer, Jamba ended up explaining the reason himself.

After the pupil demonstration, Jamba introduced a new verb form ending in 'y'. He explained how verbs like 'fly' and 'cry' change into 'flies' and

'cries' through individual Q&A. To conclude the lesson, Jamba asked a few pupils to demonstrate other sentences with the simple present tense. One boy gave an example, 'I catch a thief stealing apple always'. Jamba explained the awkwardness of the sentence, pointing out that he could not catch a thief whenever he went to town. The class ended with this explanation.

Chane's Mathematics Class (Stream B)

Chane, a maths teacher at Mwenge, taught a total of 80 pupils in a classroom with a high ceiling but no electric light. Two to four pupils shared 48 desks as they sat in rows. Chane dealt with how to read points in coordinate geometry. He spent the first 10 minutes reviewing related concepts. Through a mixture of Q&A and pupil demonstration, the pupils showed their understanding of the X and Y axes and the positive and negative quadrants. Whenever they answered correctly, the class congratulated them with chants and claps. Even if a pupil gave a wrong answer, Chane appreciated the pupil's endeavour by saying 'good trial' and told the whole-class to congratulate the pupil.

The next activity involved another Q&A. Chane brought out a flip chart on which a coordinate and five dots were drawn. The teacher asked the class how to read a point on the coordinate plane. He then appointed several pupils to read the points. A few gave incorrect answers, but Chane followed with a compliment by saying, 'Okay, good trial. Maybe another one can help her'.

After 20 minutes of Q&A, Chane arranged the pupils into groups, telling them to draw some coordinate geometry on their notebooks. He wrote on the blackboard seven sets of X and Y coordinates, like '(4, 2)'. While discussing how to express the points in groups, the pupils drew a coordinate plane in their notebooks and put the dots on it. During the activity, Chane circulated the room and checked their work, taking time to communicate with each group and explain the process for solving the questions. A little more than 10 minutes of small-group discussion was followed by group presentations. Representatives from five groups demonstrated their work while the rest of the class was listening. The following interaction shows an example presentation:

GIRL: A, we have got positive four.
CHANE: Where do you get positive four? Where do you get positive four? At which axis?
GIRL: X.
CHANE: Okay, X axis. Is it right?
GIRL: Y is positive two.
CHANE: Is she right or wrong?

ALL PUPILS: She is right.
CHANE: Okay, proceed.
GIRL: B . . . B, we get positive two at X axis, and we've got negative four at Y.

After each presentation, the teacher got all the pupils to congratulate the presenter. Chane ended the lesson by asking for questions from the floor. Nobody asked questions but replied that they understood the topic.

Horizontal Examination Across the Three Strata

Table 8.1 indicates that the transversal and vertical components can have certain relationships with the culture/society and system/policy realms *across* dispersed locations of urban public, rural public and private schools. Historical matters intermingle with contemporary activities. Horizontal comparison explores how historical and current processes may have come out distinctively depending on the localities (Bartlett & Vavrus, 2017). Along the horizontal axis, this research juxtaposed the three school groups – urban public, rural public and private schools – in terms of various pedagogical issues spreading across the three layers of the conceptual framework. Perspectives from learner revealed significant in the juxtaposition. The horizontal axis within the classroom stratum examined perceived-LCP and learning outcomes. In the culture/society stratum, pupils talked about their family lives and relationships with their parents, which suggested an implication of socioeconomic status for pupils' relational patterns with adults (to be detailed later).

In the middle domain of system/policy (Figure 2.1 and Table 8.1), accounts from pupils and teachers sometimes conformed but, at other times, contradicted one another, implying a strength of ontological relativity. For instance, teachers at private schools expressed difficulty in diverging from set curricula, which pupils also talked about. Reports from both sides also corresponded when it came to the availability of teaching materials and school conditions, with rural public schools revealing a resource shortage and private schools exhibiting resource adequacy. This agreement between pupils and teachers would substantiate the credibility of the data. On the other hand, accounts from the two positions sometimes revealed inconsistencies. When asked about pupil–teacher relationships at school, most teachers responded rather positively, while the majority of pupils talked about negative experiences of corporal punishment imposed by their teachers. Chapter 6 reports that pupils at most schools regardless of their category disclosed instances of corporal punishment. Many expressed a fear of relaying their opinions to their teachers, or even talking with them. Complaints about school activities – that some private schools did not have enough physical activities and made students study at weekends – also would not be evidenced without pupils' FGD accounts. These examples of disagreements between pupils and teachers support

Mitra's (2003) claim that different social groups experience reality differently. This indicates the robustness of using methodological triangulation within the constructivist ontology.

To further demonstrate the relevance of learner's perspectives, Table 8.1 uncovers interesting features of the data in terms of observed-LCP and perceived-LCP across different pedagogical dimensions. The table implies that observed-LCP is particularly related to pedagogical elements examined in the system/policy realm. Shaded in darker grey on the table, these dimensions include opinions on the national exam, academic emphasis, school–parent relationships, curriculum flexibility, school activities, school condition and teaching resources. Horizontal comparisons of these aspects between the three school categories suggest a further implication: each aspect seemed to relate with LCP implementation distinctively, depending on school type.

For private schools with scarce LCP-related practices, the first five dimensions – opinions on the national exam, academic emphasis, school–parent relationships, curriculum flexibility and school activities – appeared to be immediate and significant when it came to executing *observed* learner-centred practices. Too much academic emphasis was concentrated on pressuring teachers to complete syllabi without adjusting these to pupils' needs or differences. A high academic focus could also motivate teachers to employ more teacher-directed styles of teaching, because they consume less time and better meet the focus of national exams and parents' expectations.

Rural public schools also had relatively less observed-LCP but for different reasons. A shortage of teaching facilities and materials seemed to be the most significant factor, while academic affairs carried less weight for not implementing LCP-related tasks. Crowded classrooms also appeared to make it difficult for rural public schools to organise groups and/or welcome questions from the floor. Urban public schools had varied experiences depending on individual schools, although they showed significantly higher observed-LCP overall. The study revealed the difficulty of untangling which factors might have had more or less influence on LCP implementation in this category. Between-school variability was most significant with urban public schools in terms of the pedagogical dimensions evident in the policy/society domain.

In contrast to observed-LCP, perceived-LCP implied an association with human relationships, lightly shaded in Table 8.1. Human relationships include how children and adults interact in the culture/society stratum and how pupils and teachers interact in the policy/system stratum. Private pupils reported that they had opportunities to discuss their demands with parents at home, which might have contributed to nurturing their democratic attitudes when interacting with adults. This might have allowed them to get used to building more equal, democratic relations with their parents and adults in general. More democratic child–adult relationships at home could affect how they communicated with the teachers at school, providing them the confidence to pose questions in lessons and to express opinions at school meetings.

Many urban public pupils, whose perceived-LCP did not statistically differ from that of their private counterparts, lived with families with varied attitudes towards their children. Some parents provided financial support to pupils and schools, while other parents were more reserved in purchasing textbooks and stationery for their children. Pupils going to urban public schools also encountered a variety of teachers at school in terms of how they interacted with and how much they listened to pupils. On the one hand, there were teachers who ignored and harshly responded to pupils, but, on the other hand, some teachers cared about pupils' problems at home and others offered counselling services for parents and pupils. Pupils at Kwanza and Bunge in the Kigoma region, where there was no evidence of corporal punishment, had notably positive views of teachers. Quantitative results indicate that urban public pupils had perceived-LCP as high as that in private schools, and significantly higher perceived-LCP than in rural public schools.

Lastly, in rural public schools, children experienced the most rigid hierarchical relationships both with adults at home and with teachers at school. They lived under the least affluent material domestic conditions, which appeared to result in their voices seldom being heard by their parents. Corporal punishment and daily communication with teachers led pupils in rural public schools to be too frightened to speak. Thus, Table 8.1 suggests that perceived-LCP may be associated with the way people interact with others across the three domains of the conceptual framework.

The aforementioned observations regarding perceived-LCP may offer an explanation for one of the rationales of LCP promotion in the Tanzanian context that of the political desire to educate democratic citizens. Chapter 2 explicated how Dewey (1916) and Freire (2000) advocated democratisation of children through learner-centred education, which global LCP policies still use to justify LCP implementation (UNESCO et al., 2015; UNICEF, 2013). School is a microcosm of society, such that this democracy could not occur just within a school compound. Human interactions taking place in school should extend beyond and into society. Likewise, human interactions appropriate to schooling contexts should also be socially accepted. The four rows covered with lighter grey in Table 8.1 (socioeconomic status, child–adult relationships, pupil–teacher relationships and perceived-LCP) indicate that perceived-LCP might be related to how people interact within society, school and classrooms. Tanzanian culture, with its underlying rationalist epistemology, has transversally cultivated a rigid social order between adults and children, which seems to have continued into contemporary society. At the same time, culture is fluid and ever changing. The horizontal comparison revealed that some pupils, especially those at private schools, experienced more equal relations with their parents. The more democratic their parents are, the more likely they were to interact with other adults democratically. Contrarily, the more rigid the relations children encountered at home – such as rural public school pupils experienced – the more likely they were to keep relational distance from other adults. Therefore, Table 8.1 suggests a consistent association between socioeconomic status, child–adult relationships at

home and pupil–teacher relationships in school; such an association appears to be related to perceived-LCP, or how much the pupils felt that they were centred in the classroom.

Another justification for LCP implementation involves a cognitive dimension, upon which perceived-LCP also casts fresh light. LCP with higher-order thinking strategies (such as analysis, synthesis and evaluation) will enhance leaners' skills in thinking critically and solving newly encountered problems (Vavrus et al., 2011). LCP supporters at the policy level presume that learning improvement will take place as a result of the implementation of observed-LCP (UNICEF, 2009). On the other hand, some scholars such as Nguyen et al. (2009) and Guthrie (2017) question the academic effectiveness of LCP, pointing out the inconsistent results of international examinations such as the Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS) and Progress in International Reading Literacy Study (PIRLS) with respect to the extent of LCP implementation. Both views might find validity for their claims, but their arguments are made on the basis of observed-LCP, or the act of LCP-related teaching, alone.

The associations implied between learning outcomes and the two types of LCP in this study indicate a new understanding with respect to cognitive justification. The findings on statistical relationships between observed-LCP and academic performance, and between observed-LCP and learning attitudes, suggest inconsistent relationships. These results on observed-LCP correspond with the accounts of Nguyen et al. (2009) and Guthrie (2017). However, the focus on pupil views and their subjective perceptions of LCP implementation in this study suggests a different conception for the relationship between LCP and learning outcomes. Perceived-LCP consistently showed significant associations with both pupil performance and learning attitudes. Higher perceived-LCP was correlated with higher learning outcomes, and lower perceived-LCP was correlated with lower learning outcomes. Such relationships may imply that LCP, though less *observed* but more *perceived*, could contribute to pupil learning in support of the cognitive reasoning for promotion of this pedagogy. A different conceptualisation of LCP may illuminate new aspects of LCP that have remained obscure within the existing literature.

It should be cautioned, however, that statistical tests imply associations but not causations. Although regression analysis was adjusted for the observed confounders, in reality, there are quantitatively unmeasurable and inseparable elements (Tabachnick & Fidell, 2013) which affect pupils' school experiences. The findings only showed that perceived-LCP and learning outcomes co-vary systematically; whether higher perceived-LCP leads to higher learning outcomes, or vice versa, remains unanswered in this research. Possible explanations for their positive correlation entail a third variable or a combination of different variables contributing to higher scores in both perceived-LCP and learning outcomes. What is still puzzling are the questions surrounding specific components of perceived-LCP. The pupil questionnaire asked about the perceived frequency of *observed*-LCP taking place in the classroom; yet perceived-LCP was not related to observed-LCP but

seemed to have associations with the broader schooling and social experiences of the children, as Table 8.1 indicates. There was a discrepancy between observed-LCP and perceived-LCP, which implies a discrepancy between the academic/policy understandings of LCP and pupils' understandings of centredness. What actually makes up perceived-LCP needs to be unpacked. As perceived-LCP and various learning outcomes co-varied, examining how perceived-LCP can be nurtured in schools and society could contribute to improved pupil learning.

Considering that observed-LCP is not related to perceived-LCP and is inconsistently related with learning outcomes, observed-LCP alone seemed neither to make pupils feel centred nor to be conducive to better learning. The latter two are nurtured through various activities happening beyond the classroom. The degree of relational rigidity between children and adults formed in society permeates the school setting. This may affect how pupils experience learner-centredness in the classroom, which may not accord with the act of teaching itself. In a similar manner, learning improvement does not occur solely as the result of teaching techniques in the classroom. Perhaps, a more important impetus to facilitate pupil learning academically and attitudinally depends on support from both teachers and families. Academic concentration tailored to official exams will raise pupil scores efficiently. Resource availability and emotional support from parents can motivate and engage children in learning. It is attitudes, relationships and beliefs that pave the way for legitimating teaching practice; it is not the act of teaching that justifies the pedagogical ideas. With an emphasis on the multidimensionality of pedagogy spreading across the classroom, school and society, the next section revisits the conceptual framework and the CCS approach set out at the beginning of the research, seeking to reconceptualise them on the basis of the research process undertaken and the results found.

Box 11 Kwanza School (Urban Public)

Kwanza School in Kigoma was originally started as a middle school for Standards 4 to 8 by the British government in 1954. At first glance, the buildings appeared to be well-maintained and the windows were covered with nets, which was rare in other public schools in the Kigoma region, where nothing covered windows. Kwanza had newly built toilets, next to which was a new water tank. The head teacher told me that a commercial bank had funded these facilities. Computers and piped water were also funded by charity organisations. Kwanza School actively sought sponsorship from NGOs and private companies. To attract funding, it had tried to maintain a high performance in the national exams. Nonetheless, the school still had empty classrooms with no desks or only a teacher desk. It also did not have a library, science laboratory, staff room, school garden or telephone. Kwanza accommodated almost 1,000 pupils with an

equal gender balance but possessed only 108 desks where three children sat together; the school lacked 346 desks, as reported by the head teacher. Just under 20 teachers taught at the school. The school had successfully transitioned about 72% of its graduates for the three years following 2012.

Ikeno's Mathematics Class

Thirty-seven out of 40 desks and chairs were taken up by close to 90 pupils. They mostly sat with one other peer, giving relatively sufficient space between them. The wall made from mud was brown, and it reflected the sunlight from the window, making the classroom bright. Ikeno was young, in his early 20s. He had just graduated from a two-year teacher-training college after an O-level secondary education, and had begun teaching within the year of my research.

Ikeno taught fractional calculus to his pupils. The teacher introduced the topic and reviewed the concepts related to fractions, such as denominator and numerator. Individual Q&A took place, in which the pupils were highly engaged. Most pupils raised their hands and competed for the teacher's attention by tapping their fingers. When they were supposed to answer as a whole class, which the pupils knew from Ikeno's intonation, they did so loudly. After four minutes of this introduction, Ikeno wrote the contents reviewed on the board. The pupils quietly took notes. The class was very organised and controlled by the teacher.

Ikeno then demonstrated to the class how to add fractions. One aspect in which he stood out from the other observed teachers was the nature of his questions. He sometimes asked queries requiring the pupils to answer using reasoning and process, such as 'Why do we put plus?' and 'Now, what are we doing?' To these questions, the pupils sometimes explained their answers in a few long sentences, in contrast to the one- or two-word answers common in other classes.

Following the teacher's demonstration, a male pupil was appointed to present the process of solving 4/5 + 2/3. Ikeno asked him to act like a teacher. The excerpt here shows that the demonstrating pupil used tactics such as cued elicitation and checking of pupil understanding as if he were a teacher:

BOY 1: The first step, what do we do here?
BOY 2: We find LCM (least common multiple).
BOY 1: We find what?
ALL PUPILS: LCM.
BOY 1: We find LCM. This denominator is the one which we will use to do what? To find what?
ALL PUPILS: LCM.

BOY 1: So, we find LCM of five and how many?
ALL PUPILS: And three.
BOY 1: Then, it will be how many? You?
BOY 3: Fifteen.
BOY 1: Fifteen. Is it correct?
ALL PUPILS: Yes.

The male pupil maintained authority and led the class in a way similar to Ikeno. After his demonstration, Ikeno thanked the pupil and asked the class to congratulate him. A teacher explanation on how to subtract fractions followed. Ikeno then appointed two females to demonstrate subtraction and mixed fraction problems one by one. The teacher again advised them to talk like a teacher, which the pupils did. The first female led the class as follows:

GIRL 1: How many do we find? Dotinata?
GIRL 2: We find six.
GIRL 1: We take six divide by two. We are told that to start with the numbers of right hand. How many will it be? Latifa?
GIRL 3: Three.
GIRL 1: We find three. So, three times one?
ALL PUPILS: Three.

The pupil presenter mostly asked closed-ended questions but called on individual pupils rather than using whole-class answers all the time. It is interesting to note that the male pupil appointed male peers, whereas the two females were more likely to ask female fellows for their answers.

The last activity in Ikeno's lesson was a writing exercise. As the pupils were solving problems, the teacher simultaneously explained the connection between what they had learnt in the class and their everyday lives:

We may have an orange. When you divide that orange into pieces, you will have what? You may have a very big farm, but you cultivate a small portion of that farm. You will have what?

While the pupils were still engaged in the writing assignment, Ikeno asked the class if anyone had any questions about the whole lesson; because nobody brought up any questions, the teacher ended the lesson.

Towards a Holistic Conceptualisation of Pedagogy

The theoretical and methodological framing of this book with the conceptual framework and the CCS framework has attempted to advance the discourse of LCP policy transfer in the global South. The book has demonstrated the imbricated nature of various pedagogical dimensions situated within a

sociocultural context. The transversal, vertical and horizontal interplays of these dimensions would lead to a certain degree of observed- *and* perceived-LCP implementation. Such pedagogical multidimensionality calls for a more holistic and inclusive understanding of the concept of pedagogy within educational policymaking.

Recognising the significance of the conceptual framework (Figure 2.1) and the CCS approach (Figure 3.1), I argue that their relevance should be employed in educational development research on pedagogy and/or policy borrowing, with some adjustments. By incorporating the two frameworks, I propose to add a fourth outer layer of culture/society at the international level as the attendant discourse in Figure 2.1, which could take forward our conceptualisation of pedagogy. The CCS investigation has made it clear that donor agencies execute overwhelming power on the policy formation of individual countries (Mundy et al., 2016). Steiner-Khamsi (2012) points to the transient nature of policy borrowing, arguing that a borrowed policy like LCP only exists due to the receipt of external aid. This exemplifies the absolute influence of international donors and the unidirectional path taken by policy transfer. Culture is not static but fluid. Relations of power, negotiated vertically, can form and reformulate common sense in a nation. These internationally enforced policies affect the forming of values, knowledge and thinking in a country. The extension into the fourth domain of pedagogy expresses these overt and covert negotiations, accompanied by a power imbalance between international and national governments. It highlights the embeddedness of the policy process within political, social and cultural particularities.

Figure 8.1 delineates a revised conceptual framework. It integrates the conceptual framework of pedagogy (Figure 2.1) and CCS (Figure 3.1), and encapsulates specific pedagogical aspects that this research has addressed. This re-conceptualisation of pedagogy suggests substantial domains of society that educational policy implementation needs to cover. The attendant discourse of pedagogy situated in the culture/society and system/policy layers precedes the act of teaching. If global players work towards successful LCP implementation at the *observable* level, the consonant environment for LCP in the outer strata should first be conditioned. Due to the multifaceted nature of pedagogy, successful policy implementation requires altering whole layers from the culture/society and system/policy to classroom spheres. This social-situatedness of pedagogy indicates that pedagogical alteration necessitates cultural alteration. Given that LCP is a Western-oriented pedagogy spread by Western-led organisations, Carney (2008) and Tabulawa (2003) consider this travelling policy to be an example of 'cultural imperialism'. A problem remains as to whether the hegemonic nature of the global spread of LCP is ethical and/or attainable. This leads to questions about what educational development policies should aim for in terms of practising learner-centredness in schools and how they should be implemented. In the following, I position my argument regarding these questions within existing debates on the international policy direction of LCP implementation, arguing for the significance of examining pupils' schooling experiences.

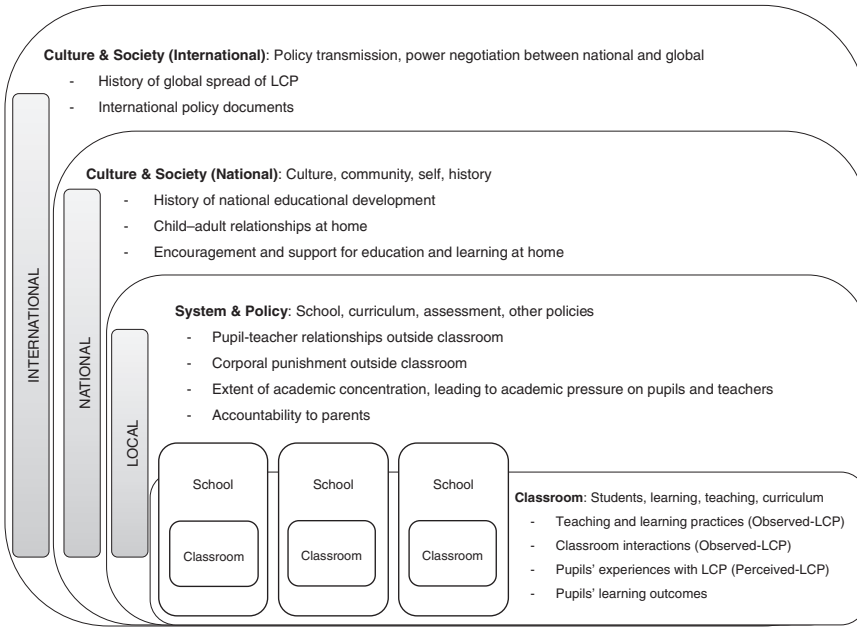

Figure 8.1 Revised conceptual framework of pedagogy

A Way Forward for LCP Implementation in the Global South

Several scholars have articulated varied standpoints towards the global spread of LCP. Given that LCP and TCP hold incongruent epistemologies, Tabulawa (2003, 2013) contends that a paradigm shift from one to the other would not be possible. Tanzania, with values and traditions aligned with rationalist epistemology, would not alter its pedagogy completely to adopt LCP based on constructivist epistemology. Tabulawa regards LCP implementation as ideological colonisation, in that it promotes Western values of individual autonomy, democracy and open-mindedness. Rather than seeking to forcefully implement Western-oriented pedagogy, the author calls for developing an 'indigenous pedagogy' that fits the cultural framework of low-income countries (Tabulawa, 2013, p. 157).

Vavrus (2009) and Schweisfurth (2013, 2015) take a different position from Tabulawa to promote a culturally appropriate model of LCP. Vavrus has coined the term 'contingent constructivism'. Drawing on an example from her experience of training student teachers in a learner-centred way, Vavrus proposes combining traditional teaching in Tanzania with learner-centred elements. Contingent constructivism acknowledges the resource conditions, local tradition and 'cultural politics' (p. 310) of teaching while encouraging the incorporation of LCP tenets in the global South. Schweisfurth (2013, 2015) agrees with Vavrus's

stance with respect to contextualising LCP by taking cultural specificities into account. She proposes 'the universal minimum standards' for LCP (Schweisfurth, 2013, p. 143) based on its cognitive, political and economic justification. The seven standards include learner engagement, children's rights, building on prior knowledge, the importance of dialogue, curriculum relevance, learning by doing and skill assessment. Each appreciates the core principle of LCP but leaves room for local interpretation and adaptation. Schweisfurth's position credits the effectiveness of LCP and encourages low-income countries to move towards learner-centred education.

Whereas the approaches suggested by Vavrus and Schweisfurth have their philosophical basis in constructivist learning theory, Tikly and Barrett (2011, 2013a) diverge from LCP beliefs. LCP draws on human rights ideas constructed remotely from the lives of the people concerned, the authors claim. It is multilateral organisations that set the kinds of and ways in which rights are valued and realised, as exemplified by the United Nations Convention on the Rights of the Child (UN, 1989). Agreeing with Robeyns (2003), Tikly and Barrett point out that LCP essentially carries an individualistic understanding of learners which is inherent in Western values. This legitimises LCP's urging of children's participation in learning processes and decision-making and the democratic structure of educational settings, irrespective of context.

As an alternative approach to quality education, Tikly and Barrett (2011, 2013a) propose the social justice approach. Instead of international conventions on human rights formulated on the basis of Western values, the social justice approach starts from moral philosophy (Tikly & Barrett, 2013b). Nancy Fraser's (2008) understanding of social justice and Amartya Sen's (1999, 2009) capability approach underpin the social justice approach. Fraser claims that three dimensions of social justice are necessary to tackle institutional barriers, including redistribution, recognition and participation. Tikly and Barrett apply these concepts to the educational sphere, identifying three features imperative to quality of education: inclusion, relevance and participation. Inclusion refers to effectively distributing resources while being attentive to different needs of different social groups. The relevance perspective signifies socioeconomically relevant education in the eyes of both individuals and society. The participation dimension concerns public dialogue and advocacy in setting educational goals and in enacting them in educational processes. The three lenses offer an analytical framework for social justice, and the capability approach initiated by Sen provides a means to define education quality and to connect it to the larger concept of human development (Tikly & Barrett, 2013b). Capabilities are freedom or real opportunities to reach certain achievements, which Sen calls 'functionings' (Robeyns, 2017). Functionings constitute outcomes of actual doing and being, such as having enough nutrients, having shelter and having access to quality education (Walker, 2006). Sen (1999; 2009) asserts that individuals need necessary capabilities in order to realise their functionings and freedom. Ensuring the aforementioned three dimensions of educational quality fosters the capabilities of individuals and society that they have reason to value. This necessitates the participation of different

stakeholders in determining 'the *what*, the *who* and the *how* of education quality' (Tikly & Barrett, 2011, p. 12, emphasis in the original). The social justice approach is an extension of the rights-based approach, Tikly and Barrett assert. The authors acknowledge the overlaps between the moral basis of the social justice approach and LCP. The difference between the two lies in where the underpinning philosophy of their recommendation originates – from human rights for LCP or moral philosophy for the social justice approach – and how 'appropriate pedagogy' is determined – in a top-down manner in LCP or bottom-up in the social justice approach.

Following Tikly and Barrett's (2011, 2013a) proposition based on social justice and capability approaches, I argue that a policy attempt to achieve quality education should reflect the views and decisions made for the people by the people who practise the policy. If LCP principles continue to take a Western philosophical basis for quality education, pedagogical colonisation persists (Tabulawa, 2013). The findings from the current research crystallise that the pedagogy cannot be divided into either TCP or LCP, or more-TCP or more-LCP on a continuum. Practical learning, cooperation among peers and rigid hierarchical relationships have historically coexisted in Tanzania. The accounts from the teachers Nyo and Zakia, and from the male pupil at Kisutsu, demonstrate their view of knowledge as something fixed that is to be transmitted. These statements signify the importance of what Tabulawa (2013) calls 'culturally responsive indigenous pedagogies' (p. 157), but I argue, in line with Tikly and Barrett (2011, 2013a), that the addition of moral philosophy is appropriate and necessary in the contemporary world when establishing education policies.

In defining 'the *what*, the *who* and the *how*' of improving the quality of education, I particularly emphasise that policy endeavours need to incorporate children's perspectives. This book has especially highlighted one of the three dimensions of the social justice approach – participation, and in particular *children's participation*. Tikly and Barrett (2013b) stress the importance of participation in decision-making processes for quality education. Not only these authors but also Tabulawa (2013) and Schweisfurth (2013) promote examining learner viewpoints in any policymaking process. This ideal, nonetheless, has not been widely practised within the literature on LCP implementation in the global South, as Chapter 2 demonstrated. This study has underscored the value of local voices examined through children's lenses. To integrate local perspectives into policy needs for key beneficiaries of education, policy research investigating how teachers *and* learners conceive of schooling experiences and what capabilities they have reason to value is imperative.

It is worth noting, however, that sensitivity to local cultural norms may sometimes conflict with normative views of social justice. One such instance this research epitomised relates to corporal punishment. The norm of the schools that I visited seemed to tolerate, or even accept, caning. Being sensitive to this school culture may mean that I should accept what was happening in front of me, which demonstrated a dilemma regarding the norm of what is just. How a social justice approach can overcome such dilemmas requires continuing debates regarding how to determine 'appropriate' pedagogy within a given context.

Conclusion

As Alexander (2004, 2008) highlights, and as this book has emphasised, the attendant discourse precedes the act of teaching. Focusing only on observed-LCP and on dimensions surrounding it misses a vast territory of pedagogy that *locates, legitimises* and *enables* the act of teaching. The culture/society stratum surrounds the other two layers, with its role to *locate* teaching. For a change in teaching practices to take place, consonant social, cultural and political foundations, and relevant policy and school environments, need to be constructed *prior to* the implementation of LCP practices in the classrooms of the global South. This book has problematised the dominant view of policymaking and literature to regard LCP as identical to the observable act of LCP; the research has introduced the concept of perceived-LCP to attend to how children subjectively experienced learner-centredness. Pupils' subjective experiences with LCP implementation and with their ways of living outside school compounds helped unpack several aspects of the attendant discourse delineated in the conceptual framework (Figure 2.1). The research findings suggest that pedagogical elements spreading throughout the three domains of the conceptual framework interact with each other to produce certain levels of *both* observed-LCP *and* perceived-LCP.

I argue that educational policy endeavours to improve children's learning and schooling experiences must reflect their perspectives. Allowing their participation in research on pedagogy and in educational policymaking can bring new insights into how the attendant discourse of pedagogy, which spreads across the four layers of the revised conceptual framework (Figure 8.1), may interact to produce locally appropriate pedagogy. This could elucidate the functionings and capabilities that children and adults have reason to value in living in their particular society, possibly contributing to slowing down or ceasing the pedagogical colonisation of hegemonic policy transfer from donor organisations to low-resource countries.

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9 New Insights on Learner-Centred Pedagogy in the Global South

This book has examined how and to what extent Tanzanian primary schools were implementing learner-centred pedagogy (LCP) within their own historical, social and cultural environments, and whether and how LCP translates into pupil learning. It has adapted a comprehensive conceptualisation of pedagogy to an empirical enquiry on LCP implementation, as opposed to the existing norm which views LCP only in relation to observable teaching. This research has attempted to inclusively understand pedagogy, taking into account the historical and sociocultural milieu of Tanzania. Engaging with the literature primarily exploring teachers and their teaching processes, this study elucidates pupils' experiences with the implementation of LCP, and teachers' views of LCP and their teaching practices. In this concluding chapter, I explicate the potential contributions this study has made to the field of pedagogical research and educational policy research. I will then discuss possible applications of the analysis and findings to policymaking and future research. The book closes by acknowledging its limitations and prompting suggestions for further study.

Situating This Study in a Larger Context

Education is a contested concept, and its definitions and purposes have been interpreted variously and expounded among different thinkers. While Freire (2000) asserted that the purpose of education is to liberate the oppressed, Dewey (1916) stated that its purpose is democratising children. Education should also prepare the young for the world of employment (Winch, 2002); at the same time, it should afford them the opportunity to explore humanity – that is, what it means to be human (Pring, 2005).

Regardless of its purposes, one of the principal participants of education involves the learner; in the context of formal schooling, where the current study took place, this encompasses the pupils. What they experience at school and how they perceive their experiences constitute the core of what they learn during schooling (Fielding et al., 2000). Despite children's educational experiences being crucial for their learning, previous studies have neglected their voices in education studies in general (Fielding, 2004; Southworth & Lincoln, 2000) and in education policy research specifically (Jones, 2011; Posti-Ahokas & Lehtomäki, 2014).

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Hajisoteriou and Angelides (2015) emphasise that an effort to examine educational policy implementation needs to involve students, because they are the main actors in schooling processes. Similarly, Tangen (2008) asserts that there is an urgent need for education research to involve pupils for delineating their learning processes and problems.

Engaging with the literature primarily focusing on teachers' perspectives and practices of LCP in the global South, this research set out to explore pupils' experiences with, and learning contributions possibly derived from, the global spread of LCP recommendations. It has revealed the different realities that different social groups may experience by exercising ontological relativism in accordance with the constructivist paradigm. The pupils discussed their perceptions of their teachers and their everyday lives at home in the focus group discussions (FGDs); their views sometimes corresponded to their teachers' narratives. Consensus from both agents with respect to the resource shortage in public schools and excessive academic emphasis at private schools corroborated the reliability of their accounts. In contrast, issues related to corporal punishment and fear of teachers were only unveiled through pupils' narratives. These seemed to lead the pupils to distance themselves from their teachers. The extent thereof was dependent on their home and schooling environments. The pupils also shared how they lived and talked with their parents and siblings, thus contributing to an increased understanding of the links between pupils' experiences inside and outside school. How they communicated with their parents at home and teachers at school showed some consistency. Therefore, the research focus on pupils' views has illuminated the multifaceted nature of pedagogy, which may have remained obscure if investigated solely from the perspective of adults.

The application of the concept 'perceived-LCP' as opposed to observed-LCP highlighted another dimension of pupils' schooling experiences. The term signifies their perceptions of learner-centredness in the classroom. Rather than regarding LCP as mere observable acts, this study attended to LCP as subjectively experienced by the key beneficiaries of education, the learners. The findings concurred with existing research in relation to observed-LCP (e.g. Barrett, 2007; Vavrus & Bartlett, 2013), in that I observed scant LCP implementation in the classroom. However, data on perceived-LCP revealed a rather contrasting result: the majority of pupils perceived that they 'sometimes' or 'often' experienced LCP in the classroom. Despite the limited LCP implementation *observed*, the pupils seemed to *perceive* learner-centredness to some extent. The discrepancy may indicate that although LCP implementation has failed at an observable level, LCP could work at a perceived level. Whether and in what ways perceived-LCP could be employed in Tanzania and similar contexts requires more empirical investigation.

Further examination of perceived-LCP is imperative and may be interesting, especially because it indicated consistent associations with pupils' academic performance and learning attitudes, one of the prominent reasons why aid agencies embrace LCP. LCP has been criticised for its ambiguous academic effectiveness,

but this criticism is based only on observed-LCP. In this study, the data on perceived-LCP implied positive correlations with learning outcomes, although this research alone cannot offer any causal or conclusive arguments with respect to associations between observed-LCP, perceived-LCP and learning outcomes. Whether and/or how perceived-LCP may contribute to pupils' learning, which could justify the cognitive reasoning for implementing LCP, calls for more empirical evidence. This study can claim to be breaking new ground by conceptualising LCP differently from the dominant view of existing literature and by proposing an alternative form of LCP that might translate into enhanced learning among pupils.

Another dimension to which this book has applied a broader conceptualisation than that conventionally available in the literature pertains to the term 'pedagogy'. Policy discourse and previous research on LCP implementation in low-income contexts have tended to reduce pedagogy to mere teaching practices. In addition to observable acts of pedagogy, this study has extended the conceptual emphasis thereof to the attendant discourse – which permeates through classrooms, school and society – encompassing culture, history, view of knowledge and school conditions. One aspect of pedagogy – history in the culture/society realm (Figure 2.1) – has been a particular focus of this study. By tracing Tanzania's educational history from the indigenous era and Nyerere's political philosophy to the present, continuities and discontinuities between past and present were brought to light. A juxtaposition of the educational trajectory with the narratives from contemporary teachers (Chapter 4) has portrayed the complexity of *ujamaa* philosophy and policy, which initially appeared to chime with the LCP tenets but, in reality, was not practised at the time of its enactment. The book has drawn on the rationalist view of knowledge as a prevalent epistemological assumption in Tanzania. This has demonstrated why the seemingly consonant ideological/historical base of LCP in Tanzania is not conducive to the current LCP implementation. A comparison of Tanzania's historical path with narratives from current teachers unpacks aspects of 'tradition' that seem to disagree with the global advocacy of LCP.

To further expand the concept of pedagogy, the conceptual framework of pedagogy (Figure 2.1) was incorporated into the comparative case-study (CCS) methodological framework (Figure 3.1). The revised conceptual framework (Figure 8.1) highlights donor influences and power relations within international society. It could serve as conceptual, methodological and/or analytical framework(s) in research on pedagogy and educational policy studies. Specifically, Figure 8.1 could help identify what dimensions of pedagogy to investigate and how to do so using the transversal, vertical and horizontal axes. Merely focusing on classroom practices from the teachers' perspectives misses out on the significant territory that the term 'pedagogy' covers. Any research on pedagogy-related policy must entail a thorough examination of various pedagogical aspects throughout the school compound, community, and national and international society, as depicted in Figure 8.1.

Methodologically, this research exemplifies the usefulness of the CCS approach and the potential for it to be employed in conjunction with mixed methods. CCS is a powerful methodological tool for exploring policy trajectories and appropriation through horizontal comparison across multiple sites, vertical examination across multiple scales, and transversal investigation to provide historical insights into the horizontal and vertical connections spatially and over time (Bartlett & Vavrus, 2017). Interweaving the triple axial analysis can help reveal the underlying mechanism as to how and why policy is made locally. Furthermore, by nesting mixed methods within the CCS framework (Figure 3.4), this book illustrates an empirical example of introducing mixed methods into the CCS approach, which has been primarily conducted through a qualitative, anthropological design. Synthesising CCS with the strengths of mixed methods may further enhance the methodological rigour of case-based research.

Related to this was the application of mixed methods in this research. Research on LCP implementation in low-income nations has seldom employed a mixed-methods methodology or quantitative methodology, thus resulting in disproportionate empirical dependence on qualitative findings (Frost & Little, 2014; Schweisfurth, 2011). The present study has addressed this methodological imbalance by employing mixed methods. Accumulating its results could triangulate methodological applications in the literature, and this could enhance the validity and reliability of the overall findings made previously. Accordingly, the book has endeavoured to enhance methodological applications in the existing literature on LCP implementation in the global South and the applicability of CCS in educational policy research. Given the aforementioned contribution to knowledge that this study can claim to have made, I now specify implications for policy and future research based on the research findings and interpretations.

Implications for Policy and Research

The transversal and vertical analyses employed in this book have highlighted the traveling nature of LCP policies. Considered as the *best practice* or *universal panacea* in educational reforms, LCP has been widely borrowed and lent from one culture to another. Mundy (2016) maintains that this global collective effort to ensure the right to education is continuing and will continue under the aid architecture of Education for All, Child-friendly Schools and Sustainable Development Goals. However, the transferred policies of LCP have not simply converged towards an *international mode of education* as predicted by development players (Mundy et al., 2016). Scholars have underscored local meanings, political and economic settings, agencies and historical contingencies playing out and affecting each other (Carney, 2012; Waldow & Steiner-Khamsi, 2012).

The findings from this research have also raised doubts concerning the policy expectations of LCP implementation in the global South. The vertical investigation elucidated an exclusive policy focus on teaching practice, thus

implying a technicist assumption that LCP as a mere teaching method could be easily imported to and adopted in low-income countries, regardless of their sociocultural and environmental conditions. However, pedagogical policies ignoring historical, cultural and epistemological contingencies are unlikely to realise their ambitions. Local policy actors tend to adjust, refine and mutate the original and internationalised policies in a particular setting. The horizontal exploration in this book highlights the significance of resource adequacy, academic weight and pupil–teacher relationships which affect the extent and arrangement of LCP implementation. The transversal investigation further illuminated that merely implementing observable-LCP does not develop an epistemology consonant with LCP or democratic pupil–teacher relationships. A paradigm shift and practising democracy at school requires cultural values and human interactions that justify them. In Tanzania, the view of knowledge as fixed and transmitted has afforded the knower social privilege and power to be respected by the learner. This notion is so deeply rooted in the history and culture of the country that it is implausible to assume that a mere teaching practice could alter culturally appropriate epistemology (Tabulawa, 2013). The interrelationships of multiple factors developed in the past and present appear to have produced a rather unexpected form of observed practice in local classrooms.

The technicist approach of LCP as a best practice also assumes that observable LCP acts will automatically produce teachers' belief in LCP and contribute to cognitive, political and economic outcomes. However, this study reveals the errors intrinsic to this assumption. The varied academic achievements and learning attitudes implied correlations not only with observable activities but also with pupils' perceived learner-centredness. Pupils' perceptions of classroom experiences, which differed significantly among schools, seemed to be associated with the pupils' societal and cultural milieu such as their socioeconomic status and accustomed ways of interacting with adults. Teachers' observable practices in the classroom appeared to play a somewhat less significant role in pupil learning. If international agencies envisage pupils' enhanced academic achievement and positive attitudes towards learning as part of the end goals of LCP implementation, advocating LCP only with respect to teaching acts is unlikely to result in their intended consequence.

These limitations in policymaking processes suggest that a policy on pedagogy, or more broadly educational policy implementation, requires the empirical research with a comprehensive framing of the concept of pedagogy and a methodology that pursues its comprehensiveness. The revised conceptual framework (Figure 8.1) could offer a conceptual and methodological tool for this endeavour. Capturing various dimensions of pedagogy elucidates policy negotiations between international, national and local scales. CCS may provide beneficial methodological axes to connect the past and present (transversal tracing), follow the policy transmission process (vertical examination), and compare policy implementation within different contexts (horizontal investigation).

Educational policy research must also involve key stakeholders in education, especially children whose voices have largely been neglected in the empirical literature. The results from this study, and the original and revised conceptual frameworks (Figures 2.1 and 8.1), reveal the crucial role pupils play in co-constructing classroom reality. The significant association of perceived-LCP with pupil learning also demonstrates the value of their viewpoints. Examining learner experiences provides information on the meaningfulness and effectiveness of education for its key beneficiaries. The constructivist paradigm with ontological relativity necessitates an investigation of the local voices that various social groups may possess.

This book has thus demonstrated the value of local reality investigated through an otherwise hidden lens, including that relating to learners. Adopting Western-oriented LCP as a universal panacea for enhancing the quality of education has been suggested as unlikely to make a real difference. While culture shapes pedagogy, pedagogy affects the forming of culture. To integrate local perspectives into policy needs, it is imperative to explore different facets of pedagogy from the perspectives of different social groups. The multidimensionality of pedagogy bespeaks a consideration of the historical, social and cultural ambience in search of a best practice, which is not universal but unique to a specific context.

Limitations and Suggestions for Future Research

This study has some methodological limitations partly derived from merging CCS and mixed methods, thus indicating possible areas for further research. Although a case study usually expects a rich, in-depth investigation of cases (Patton, 2015), my time at each school was limited to a few days, and thus, I was unable to obtain the in-depth data that are usually observed in case studies applying purely qualitative, ethnographic approaches. With a longer stay at each school, I would have been able to nurture trust and develop closer relationships with the participating teachers and pupils. As it is difficult to spend several months at each school when employing a mixed-methods design at many schools, spending more time at fewer schools is recommended, as it may generate more trusting relationships with the participants and potentially facilitate more detailed discussions with them.

Along the quantitative strand, the number of schools visited and classrooms observed did not generate enough variability among the schools or classrooms. This limited the statistical power to provide conclusive relationships between the extent of LCP implementation and learning outcomes. Despite its original aim of analytical generalisation, the study could have offered interpretations and arguments applicable to a wider population if a larger number of schools had been observed. Sufficient numbers of observations would enable future research to imply a pathway or causal mechanism underlying the level of LCP implementation to improve learning outcomes (or not).

That said that the CCS approach with mixed methods was intended to obtain both the depth and breadth of data that each case might demonstrate. This research followed the definition of *case* adopted by Bartlett and Vavrus (2017, p. 27): cases within the CCS framework were 'similar enough and separate enough' (Ragin, 1992, p. 1) to enable comparisons between them. The unique characteristics of each school make it a case along the horizontal axis. The data from the horizontal comparisons were then knitted together with the transversal and vertical axes, aiming to make this research a case study of Tanzania within the CCS framework with an integration of school case studies across the horizontal axis.

Conclusion

Employing the constructivist view of knowledge in conjunction with relativist ontology, this book examines the multiple realities in different groups of pupils and teachers. Figure 8.1 represents the nature of pedagogy, with respect to not only the cognitive and educational but also the political, cultural and historical. Teaching is legitimised by various factors of the attendant discourse. Without the appropriate values, theories, beliefs and evidence in culture and society that accord with LCP concepts, learner-centredness as an act of teaching would not take place in the classroom. Observed-LCP depicts one of the many dimensions of pedagogy. To appropriate observed-LCP in classrooms, recognising the nested structure of pedagogy within the social, cultural and historical spheres is imperative.

Considering the inextricable link between the layers of pedagogy and sociocultural environments, what should pedagogical policies endeavour to do and how should they be appropriated? LCP manifests human rights and cultural beliefs deemed *appropriate* by Western-led agencies. Employing LCP principles as a philosophical basis of pedagogical reform cannot be divorced from Westernisation, or ideological colonialism. As an alternative to LCP, a social justice approach could act as a promising means to pedagogical policy formation. People in the country concerned should have the right and opportunities to decide the most appropriate pedagogy in their specific sociocultural contexts. In this process, the participation of local policy actors will ensure the functionings and capabilities that they prioritise.

This study has placed its central focus on the views of local policy actors, especially the views of children who have been neglected in the LCP policy discourse. Their narratives and the quantitative measurement of perceived classroom experiences have provided some policy implications. Furthermore, children's perspectives have been revealed as essential for understanding how policy is implemented at the local level. In this process of exploring the attendant discourse, investigating how pupils make meaning out of the observed classroom practices and how they form their experiences can provide useful insights. Thus, the views of pupils and teachers, and examining historical and social contingencies, can inform an appropriate pedagogy which paves the way to nurturing what the people living in a given culture have reason to value.

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Appendix 1

Structured Observation Protocol

Activities/Time (min)		*0:00–0:29*	*0:30–0:59*	*1:00–1:29*	*1:30–1:59*	*2:00–2:29*	*2:30–2:59*	*3:00–3:29*
LCP	Individualised activity							
	Group work							
	Pupil demonstration							
	Learner-initiated Q&A							
TCP	Watching/listening							
	Taking notes							
	Reading aloud							
	Writing exercise							
	Teacher-initiated Q&A							
Off-task	Teacher management							
	Transition							
	Pupil uninvolved							

Note: Records continue for the duration of lessons.

Appendix 2
Definitions of Activities

Types of activities		*Description*
Learner-centred pedagogy (LCP)	Individualised activity	Each pupil or group of pupils engage(s) in different activities depending on their interests, abilities and experiences.
	Group work	Pupils discuss or work with peers to solve problems.
	Pupil demonstration	Pupil(s) showing that something exists. A pupil explains his/her work to class.
	Learner-initiated Q&A	Pupils ask questions; pupils answer questions initiated by another pupil.
Teacher-centred pedagogy (TCP)	Watching/ listening	Pupils listen to the teacher's lecture and/or watch what the teacher does.
	Taking notes	Pupils copy what the teacher writes on blackboard.
	Reading aloud	Pupil(s) read from a textbook or the blackboard to the whole class.
	Writing exercise	Pupils work on writing exercises from the blackboard or textbooks individually.
	Teacher-initiated Q&A	The teacher asks questions of the whole class, to which an individual pupil is expected to give an answer.
Off-task	Teacher management	Time spent on class administration not related to task or learning contents.
	Transition	Pupils prepare for next task.
	Pupil uninvolved	Pupils are not engaged in on-task activities (e.g. waiting for teacher direction, talking with each other).

Appendix 3
Interaction Codebook

Interaction categories				*Interaction counts*	*Total counts*	*Percentage*	
						Small category	*All*
Initiation	Teacher	Teacher question	Open Closed				
		Giving directions					
		Cued elicitation					
		Checking					
	Pupil	B[1] question					
		G[2] question					
		B[1] initiate talk					
		G[2] initiate talk					
Response	Teacher	T[3] answer					
	Pupil	B[1] answer					
		G[2] answer					
		Whole-class response					
		Whole-class chanting					
Feedback	Teacher	Very encouraging					
		Encouraging					
		Neutral					
		Discouraging					
		Very discouraging					

Note[1]: B: Boys
[2] G: Girls
[3] T: Teacher

Appendix 4
Definitions of Interactions

Teacher initiation	Teacher question (closed or opened)	The teacher asks questions with the proviso that pupils will answer. Closed-ended questions are those where the teacher accepts a single answer, requiring pupils to recall facts. The question 'is she/he right?' falls into this category, because the teacher would not expect a pre-determined answer but simply asks what pupils think. Open-ended questions are those for which the teacher accepts more than one answer.
	Giving directions	The teacher gives directions, commands or orders, which the pupils are expected to follow. Rate as 'teacher question (closed or open)' if the teacher's intention is to ask questions, even if teacher speaks in the form of giving direction (i.e. ordering) or a statement.
	Cued elicitation	The teacher tries to elicit a response from the pupils in the form of a repetition or completion of a phrase or word. When an incomplete sentence ends with WH form[1], it is counted as 'cued elicitation', because the teacher would expect the pupils to complete the sentence.
	Checking	The teacher asks whether the pupils understand content. Rather than a genuine check, it usually comprises 'pseudo-checking', where the teacher expects only affirmative answers.
Pupil initiation	Pupil question	The pupils ask questions either of the teacher or other pupils. Recorded by gender. For instance, when a pupil is demonstrating work in front of the blackboard and asks the class questions, rate as 'B question' or 'G question'.

(*Continued*)

(Continued)

	Pupil initiating talk	The pupils express their own ideas or initiate a new topic. There is a sense of freedom to develop opinions and a line of thought. Recorded by gender.
Teacher response	Teacher answer	The teacher answers a question raised by a pupil.
Pupil response	Pupil answer	One pupil answers a question. Recorded by gender. Count as pupil answer when a pupil is demonstrating his/her work.
	Whole-class response	All or some pupils recite the same answer in response to the teacher's question or cued elicitation. This mostly takes the form of a repetition or completion of a phrase or word.
	Whole-class chanting	All or some pupils sing or clap together, mostly to praise other pupils.
Teacher feedback	Very encouraging (praise)	The teacher praises a pupil's response in words (e.g. very good, well done). The teacher tells other pupils to congratulate the pupil, mostly in the form of singing.
	Encouraging (affirmation)	The teacher simply affirms the answer (e.g. good, OK, that's it, fine, correct, right, yes, try again, thank you, thank you very much). This category includes 'no, thank you'.
	Neutral	The teacher probes or gives an answer. The teacher may repeat what is stated by pupils or ask pupils to answer again (e.g. Eh? Pardon? Yes?). If the teacher asks a further question in response to the pupil's answer, it is rated as an open or closed question in the 'initiation' category.
	Discouraging (no reaction)	The teacher does not give any response to a pupil, and proceeds to another issue or task or asks another pupil to respond to the same question.
	Very discouraging	The teacher gives a very discouraging response (e.g. incorrect, no, wrong).

Note[1]: WH form includes when, where, who, what, why and how.

Appendix 5
Questions for Teacher Interviews

A. Questions About Teaching Practices

1. Can you first tell me how you usually teach your lesson? Please describe your everyday lesson from the beginning.
2. You mentioned in the questionnaire that you have heard about _____. Can you explain your understanding of _____?
3. Is it easy for you to practise the teaching method in your lesson? (Ask in relation to all strategies mentioned in 2.)
   - If yes, what and how do you do it? Why do you think it is easy?
   - If no, what are the barriers to practising the method?
4. Are there any learning activities that you would like to do in your lesson but cannot implement for some reason? What are they? Why is it difficult to do?
5. How do you usually interact with pupils?
6. Do you talk with your pupils outside of class? What do you typically talk about?
7. Does your school work with parents and/or community in some way?
   - If yes, in what aspect(s) of school activities they are involved? Is there any parental organisation?
   - If no, do you think it is important to work with them, or do you think it is not necessary? (If important, are there any concerns/difficulties in working with parents?)

B. Questions About Social Aspects of Tanzania

8. Do you think Tanzanian society in general is socially cohesive? In other words, do you think ties/relationship among people are strong?

   Could you give me any specific examples?
9. Do you think Tanzania is generally an equal society?

   In what aspects of your daily life do you feel that way?

10. I understand that, in Tanzania, younger people have to respect and honour older people. Is this true at school as well?

    Considering the culture of Tanzania, do you think teachers and pupils can be equal?

11. Have you heard the name Julius Nyerere?

    – If yes, what do you know about him? What is your understanding of Nyerere's ideas?

      Do you think Nyerere's ideas still exist in today's society? In what aspects do you see the ideas? (Probe this on ideas around *ujamaa*, i.e. social cohesion, equal society, active participation of citizens in nation building.)

    – If no, probe and move on to the end.

12. Do you think Nyerere's ideas you mentioned are reflected at school?

    – If yes, how are they reflected? When or in which aspects do you think XXX is present at your school? (Ask in relation to key phrases identified in 11.)
    – If no, probe and move on to ending remarks.

13. Do you think these ideas affect your teaching practice? How so?

Appendix 6

Questions for Focus Group Discussions With Pupils

A. Questions About School Experiences

1. First, I want to know your experience in activities. What do you like most about lessons? In other words, what kinds of classroom activities do you like the best?
2. What do you like least about lessons? What kinds of lesson activities do you dislike?
3. Imagine, if you could change one thing about your class, what would you like to change?
4. About relationships with your teachers, do you always follow what he or she says? Or do you sometimes tell him/her your opinions and try to propose alternatives?

B. Questions About Social Relationships

5. At home, what kinds of things do you talk with your parents and siblings?
6. When you discuss family matters and make decisions about something with your parents, do you express what you think to your parents? If so, do they take account of your views?
7. With your older or younger siblings, do you share various things – such as food, toys and books – equally? Or do any of you usually get more or less?

Appendix 7
Pupil Questionnaire

A. About Your Background

1. How old are you?
   - ☐ 11 years old
   - ☐ 12 years old
   - ☐ 13 years old
   - ☐ Other (please specify) _____

2. Are you female or male?
   - ☐ Female
   - ☐ Male

3. What language do you usually speak at home?
   - ☐ Swahili
   - ☐ English
   - ☐ Other (please specify) _____

4. Do you have the following things at your home? (Tick all that apply.)
   - ☐ Piped water
   - ☐ Electric lighting
   - ☐ Landline telephone
   - ☐ Mobile phone
   - ☐ Study desk
   - ☐ Daily newspaper
   - ☐ Television
   - ☐ Radio
   - ☐ Computer
   - ☐ Internet
   - ☐ Bicycle
   - ☐ Motorcycle
   - ☐ Car
   - ☐ Fan
   - ☐ Air conditioning

5. How many books do you have in your home? (Do not include magazines, newspapers, or your schoolbooks.)
   - ☐ 0
   - ☐ 1–10
   - ☐ 11–25
   - ☐ 26–50
   - ☐ 51–100
   - ☐ 101 or more
6. On average, how many times do you eat per day? _____ times
7. Did you go to pre-school or kindergarten?
   - ☐ Yes
   - ☐ No
8. Have you ever repeated a grade?
   - ☐ Yes, in pre-school/kindergarten
   - ☐ Yes, in grades 1–3
   - ☐ Yes, in grades 4–6
   - ☐ Never

B. About Your Family

9. My father can write: (*Tick all that apply.*)
   - ☐ Swahili
   - ☐ English
   - ☐ Other (please specify) _____
10. What is your father's highest educational level?
    - ☐ Primary level
    - ☐ Secondary O-level
    - ☐ Secondary A-level
    - ☐ 3-year university level or higher
    - ☐ Don't know
    - ☐ None
11. What does your father do? _____
12. My mother can write: (*Tick all that apply.*)
    - ☐ Swahili
    - ☐ English
    - ☐ Other (please specify) _____
13. What is your mother's highest educational level?
    - ☐ Primary level
    - ☐ Secondary O-level
    - ☐ Secondary A-level
    - ☐ 3-year university level or higher
    - ☐ Don't know
    - ☐ None
14. What does your mother do? _____

15. How often do the following things happen at home? *Tick one box for each sentence.*

	Every day or almost everyday	*Once or twice a week*	*Once or twice a month*	*Never*
a. My parents check if I do my homework.	☐	☐	☐	☐
b. My parents help with my homework.	☐	☐	☐	☐
c. My parents ask me what I am learning in school.	☐	☐	☐	☐
d. I talk about my schoolwork with my parents.	☐	☐	☐	☐

C. About Your School and Classes

16. What do you think about your school? Tell how much you agree with these statements. *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. I like being in school.	☐	☐	☐	☐
b. I feel safe when I am at school.	☐	☐	☐	☐
c. I feel like I belong to this school.	☐	☐	☐	☐

17. During this year, how often have any of the following things happened to you at school? *Tick one box for each sentence.*

	At least once a week	*Once or twice a month*	*A few times a year*	*Never*
a. I was made fun of or called names.	☐	☐	☐	☐
b. I was left out of games or activities by other students.	☐	☐	☐	☐
c. Someone spread lies about me.	☐	☐	☐	☐
d. I was hit or hurt by other student(s).	☐	☐	☐	☐
e. I was made to do things I didn't want to do by other students.	☐	☐	☐	☐

18. Do you have your own textbooks for the following subjects?

English	☐ Yes ☐ No
Mathematics	☐ Yes ☐ No

19. How often in a week do you receive homework in English and mathematics?
English: _____ times per week
Mathematics: _____ times per week

20. How often does your teacher check your homework?
☐ Always/mostly
☐ Sometimes
☐ Never
☐ No homework given

21. How many days were you absent in the last month?
_____ days

D. Classroom Activities

Please indicate how often you practise the following activities in class. *Tick one box for each sentence.*

	Almost never	**Seldom**	**Some-times**	**Often**	**Very often**
22. I express my opinion during the lesson.	☐	☐	☐	☐	☐
23. My teacher takes my personal interest into account.	☐	☐	☐	☐	☐
24. I do not ask or answer questions while my teacher lectures.	☐	☐	☐	☐	☐
25. My teacher is unfriendly to me.	☐	☐	☐	☐	☐
26. My ideas and suggestions are used during the lesson.	☐	☐	☐	☐	☐
27. Different students use different equipment and materials.	☐	☐	☐	☐	☐
28. I tell my opinions and ideas during class.	☐	☐	☐	☐	☐
29. My teacher considers my feelings.	☐	☐	☐	☐	☐
30. There is classroom discussion.	☐	☐	☐	☐	☐
31. My teacher stands in front during class.	☐	☐	☐	☐	☐
32. I work in groups in class.	☐	☐	☐	☐	☐
33. My teacher scolds or beats me/other students to maintain classroom order.	☐	☐	☐	☐	☐
34. My teacher praises me for good effort.	☐	☐	☐	☐	☐
35. Lessons are related to my daily lives.	☐	☐	☐	☐	☐

E. About the Learning Experience

36. How much do you agree with these statements about learning? *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. I enjoy learning.	☐	☐	☐	☐
b. I wish I did not have to study.	☐	☐	☐	☐
c. Studying is boring.	☐	☐	☐	☐
d. I learn many interesting things in lessons.	☐	☐	☐	☐
e. It is important to do well in schoolwork.	☐	☐	☐	☐

37. How much do you agree with these statements about lessons? *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. I know what my teacher expects me to do.	☐	☐	☐	☐
b. During lessons, I think of things not related to the subject.	☐	☐	☐	☐
c. My teacher is easy to understand.	☐	☐	☐	☐
d. I am interested in what my teacher says.	☐	☐	☐	☐
e. My teacher gives me interesting things to do.	☐	☐	☐	☐

38. How much do you agree with these statements? *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. I usually do well in school.	☐	☐	☐	☐
b. Learning is harder for me than for many of my classmates.	☐	☐	☐	☐
c. I am just not good at learning.	☐	☐	☐	☐
d. I learn things quickly in general.	☐	☐	☐	☐
e. I am good at working out difficult problems.	☐	☐	☐	☐

39. To what extent do you agree with the following statements about learning? *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. If I put in enough effort, I can succeed in school.	☐	☐	☐	☐
b. Whether or not I do well in school is completely up to me.	☐	☐	☐	☐
c. Family demands or other problems prevent me from putting a lot of time into my schoolwork.	☐	☐	☐	☐
d. If I had different teachers, I would try harder when doing schoolwork.	☐	☐	☐	☐
e. If I wanted to, I could do well on my schoolwork.	☐	☐	☐	☐
f. I do badly on schoolwork whether or not I study for my exams.	☐	☐	☐	☐

40. To what extent do you agree with the following statements about studying for your school? *Tick one box for each sentence.*

	Agree a lot	*Agree a little*	*Disagree a little*	*Disagree a lot*
a. I have my homework finished in time.	☐	☐	☐	☐
b. I work hard on my homework.	☐	☐	☐	☐
c. I am prepared for my exams.	☐	☐	☐	☐
d. I keep studying until I understand the material.	☐	☐	☐	☐
e. I pay attention in class.	☐	☐	☐	☐

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