Christine Nyiramana

Quality of Teacher Education

Experiences of Student Teachers vis-à-vis Teachers' Feedback



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Christine Nyiramana

Abstract

This study investigates the learning situation of student teachers especially their experiences with the feedback they receive during their study time including teaching practice. The research was conducted in Rwanda, a small developing country located in the Central Eastern part of Africa. This study was focused on the initial training of secondary school teachers.

In the educational discourse, feedback in teacher training as well as in the educational practice is assigned a primordial role regarding educational quality. However, there are until now no findings related to feedback in the teacher training of Rwanda, focusing on the perspectives of student teachers and their understanding of their own professional development. Thus, this study intends to answer the research question "How does teacher education look like regarding feedback in the Rwandan context?" which is operationalized in four sub-questions: (1) What kind of learning situation do student teachers face concerning feedback in the Rwandan context? (2) What understandings do student teachers have on feedback they receive from their teachers at university? (3) What kind of feedback do student teachers get? and (4) How do student teachers see the contribution of feedback on the quality of teaching and learning process?

Given the purpose of this study and recommendations from scholars especially regarding conducting research on human actions and experiences (Savin-Baden & Major 2013; Forlizzi & Ford 2000, p. 423), and reflecting the lack of research in the region, this study was conceptualized as qualitative research. Semi-structured interviews were used with 32 student teachers who have been selected from 13 Rwandan Higher Learning Institutions using theoretical sampling strategy. A sampling table with different criteria (as gender, age, teaching subjects etc.) was elaborated and progressively filled during the process of data collection. Data collection was done in parallel with data analysis to reach sample saturation and maximize all the qualities in the field. All interviews were done in Kinyarwanda (the mother tongue of interviewees) and then translated to English after the transcription to facilitate the data analysis

and collaboration with the interpretation group, especially for quality control by both intra-coding and inter-coding. Qualitative content analysis using intertwined deductive-inductive approach has been chosen and used for data analysis method. A deductive code system was elaborated and completed with inductive codes throughout that process of analysis. All the 32 interviews were coded using MAXQDA. With the abduction process, a deep analysis of the empirical data using different research materials like interview transcripts, the coding system, and portraits of all interviews led to the definition of criteria and then three ideal types of feedback experienced by student teachers in Rwanda. The five criteria developed from the empirical data are aim of the feedback, communication process, role played by student teachers and teacher educators, requirement for giving or receiving feedback, and student teachers' positions about feedback. The three types of feedback generated from the data, were named administrative feedback, correctional feedback, and instructional feedback. Each type is characterized in detail (see chapter 4.3) and summarized (see chapter 4.4).

The main findings of this research show that

- student teachers experience different forms of feedback,
- student teachers have divergent understandings of feedback,
- delayed feedback leads to increased uncertainty among students,
- communication of feedback creates different forms of relationships between student teachers and teacher educators,
- student teachers learn implicitly from teacher educators how to provide feedback, and that
- common standards regarding internships are missing. (see chapter 5.1.)

The findings were discussed in the light of the discourse on teacher education, feedback, and educational quality. The study contributes to an understanding of the multidimensional effects of feedback in teacher education and the function of feedback for the learning climate and the relationship among students and with teachers. Feedback is understood as an important tool for student teachers' professionalization, and as a

transformative tool for shaping teachers into change agents at the school level and in the society. With reference to the discussion, avenues for research including exploring the distribution of these types of feedback and the effects of teachers' role modelling and development in the society are suggested. This research also underlines the need for integrating feedback in teacher training programme both as a content and a pedagogical approach and in regular in-service training.

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List of Abbreviations and Acronyms

AUCA Adventist University of Central Africa

CATs Continuous Assessment Tests

CE College of Education

CP Chef de Promotion

CTs Cooperating teachers

EDPRS Economic Development and Poverty Reduction Strategy

HE Higher Education

HEC Higher Education Council

HLIs Higher Learning Institutions

ISCPA Institut Supérieur Catholique de Pédagogie Appliquée

ISPG Institut Supérieur de Pédagogie de Gitwe

IUCEA I nter-University Council for East Africa

KIE Kigali Institute of Education

LCP Learner centred pedagogy

LSD Lower Secondary Diploma

LTA Learning and teaching assessment

MAXQDA Maximizing Qualitative Data Analysis

MINEDUC Ministry of Education

NIE National Institute of Education

NCoE National Colleges of Education

NUR National University of Rwanda

OECD Organisation for Economic Co-operation and Develop-

ment

PGCLTHE Postgraduate Certificate for Learning and Teaching in

Higher Education

PGDE Postgraduate Diploma in Education

SCMs School coordinating mentors

SDGs Sustainable Development Goals

TTCs Teacher Training Colleges

TVET Technical Vocational Education and Training

UNDP United Nations Development Programme

UNSW University of New South Wales Australia

UNESCO United Nations Educational, Scientific and Cultural Or-

ganization

UR University of Rwanda

UR-CE University of Rwanda – College of Education

QCA Qualitative Content Analysis

Dedication

This dissertation is dedicated to my late parents: Faustin Ntawuyabara and Grâce Uwimana who ensured that I had a good foundation for my learning journey. It is also dedicated to all my teachers from nursery up till now for their tireless work that contributed a lot in shaping my professional and academic career.

1 Introduction

In this study, I focus on the quality of teacher education, more specifically on the experiences of student teachers with regard to one criterion of teaching quality, namely feedback. Literature show that teachers play a central role in education and thus, in the improving the quality of education once well trained (Lange 2016; Hattie 2012, Frederickson 2004). Therefore, the quality of teacher education remains one of the priorities in addressing the global learning crisis, particularly in developing countries (UNESCO 2016 & 2104). This study is conducted in Rwanda – a developing country located in the Great Lakes region of Africa. It is a hypotheses generating research aiming at contributing to the educational discourse on teacher education and at improving the quality of teacher education in Rwandan higher learning institutions.

In the next sections of this chapter, I first describe the context and problem (1.1) in relation to the praxis, research discourse as well my personal experience as teacher educator at a higher learning institution in Rwanda. Research questions guiding this research are described in the next section (1.2) and finally, a brief description of the methodology used to conduct this research (1.3) as well as the overview of the study (1.4) is given.

1.1 Context and problem

This study is conducted in Rwanda which is a small landlocked developing country located in the Central Easter part of Africa. The question of education and its quality in Rwanda, can be reflected in relation to its historical, political, and socio-economic backgrounds. The history of Rwanda includes three main periods such the pre-colonial, colonial, and post-colonial. Formal education was introduced by missionaries and colonial powers at the beginning of the 20th century (Rugengande 2008, p. 30). From this time until now, education system in Rwanda went through different reforms which in one way or the other affected the organization of teacher education. One of the recent changes happened in 2015 when the Government of Rwanda decided to shift from

knowledge-based curriculum to competence-based curriculum (Nsengimana 2021). In its recent history, Rwanda recognized the tragedy of Genocide perpetrated against Tutsi in 1994 which demolished both human and material resources resulting to negative effects on education (Rubagiza, Umutoni & Kaleeba 2016, p. 202; Krogull, Scheunpflug, & Rwambonera 2014; Republic of Rwanda 2003). For instance, more than two-thirds of primary and secondary teachers lost their lives during the 1994 Genocide (Buckland 2005). Schools were left with several problems: "visible and hidden like psychological, moral, and psychosomatic problems". Both teachers and students were affected by these problems, and it was necessary to reflect and find a pedagogy that could be useful in rebuilding the education system and the society (Krogull et al. 2014, p, 14). The traumatic effects on teachers and students still persist even if the intensity is reduced.

In addition to challenges indicated above, the poor economic background and the increasing population with limited geographical space adversely affect the strides made in education sector. According to the demographic information, Rwanda is one of the most densely populated countries in African. The population density per square kilometre increased for instance from 415 in 2012 (Republic of Rwanda 2014b, p. 14) to 551 in 20221. This increase is also visual in educational statistics (Republic of Rwanda 2022, p. xiii).

Despite the complexity of the challenges described above, Rwanda is making progress in various domains of education such as implementation of Education for All (EFA) (UNESCO 2015). Related strategies are highlighted in different policies elaborated in this regard such as education sector policy, vision 2020 and the Economic development and poverty reduction strategy I & II (EDPRS I & EDPRS II). For instance, in the 2003 Rwanda education sector policy, education is recognized as a basic human right to be used for the country development (Republic of Rwanda 2003). Similarly, this policy stresses the need of ensuring education quality throughout all systems of education (Republic of Rwanda 2013).

¹ https://worldpopulationreview.com/countries/rwanda-population

However, the implementation of EFA alone is not enough as access to quality is equally of importance (UNESCO 2014; UNESCO 2004). This raises the need of reflection on the overall educational quality development, including the process of teacher education. This is because "teachers are the foundational component of any education system. It is vital that adequate attention is focused on appropriate and effective training of these teachers" (Beavers, 2009, p. 25).

In the next sections, I describe the context and problem of my study in regard to the practice and research discourse. I start (see 1.1.1) by describing the context of teacher education in education. Here, I give a brief descriptive about teacher education in Rwanda, its historical background, quality standards, and challenges in Rwandan teacher education. In next section (see 1.1.2), I describe the context of teacher from educational discourse perspective. This is followed by the section where I present the discourse on feedback, especially in teacher education (see 1.1.3). In the last section (see 1.1.4), the context of feedback in the Rwandan education system is described. Research questions, a brief description of the methodology used in this research, as well as the structure of the thesis are also given (see respectively 1.2, 1.3, and 1.4).

1.1.1 Teacher education in the Rwandan context

In Rwanda, education is perceived as a path to a sustainable development. The education sector policy of 2003 signifies education as tool for training skilled citizens needed for socio-economic development of the country (Republic of Rwanda, 2003, p. 8). To achieve this mission, improving the quality and relevance of education was sought among the central objectives (Republic of Rwanda, 2003, p. 17). In the context of Rwanda, educational quality is understood as "all children leaving school equipped with the skills, knowledge, attitudes and values needed for Rwanda's economic and social development and for their own further educational and social development" (World Bank 2011, p. 90). Education in Rwanda is divided into four main levels namely pre-primary, primary, secondary and tertiary levels. This study focuses on the tertiary level, especially teacher education in higher education.

Teacher education in Rwandan context is provided either in terms of initial or in-service teacher training. Regarding initial teacher training, teachers are trained at secondary or higher education level. At secondary level, teachers are trained through Teacher Training Centres (TTCs) for a three-year period. These TTCs train nursery and primary level teachers. Education in primary schools is provided from grade 1 to grade 6. Teachers for secondary education are trained in higher learning institutions (HLIs), as well as teacher trainers of nursery and primary teachers in TTCs. The teacher training in these HLIs constitutes the focus of my study. In HLIs, the length of the study in terms of years depends on the program pursued. In general, this length varies from 2 years (240 credits2) after which students get a diploma in education and 4 years (480 credits) after which students get a bachelor's degree with honours in education. In addition, there are two special programs in teacher training. One programme is a Post Graduate Diploma in Education (PGDE) designed for secondary teachers who did not do any education program at university before joining the teaching career. The programme lasts for only 120 credits. The second program is a Post Graduate Certificate for Learning and Teaching in Higher Education (PGCLTHE) designed for university teachers and which last for only 60 credits. This last special program will not be considered in my study as the study will focus on the teacher training of secondary school teachers.

The teacher development and management policy in Rwanda determines requirements for secondary teaching qualification at university as follow:

"To become a lower secondary school teacher, a person must gain entry into a national college of education (COE) after successfully completing upper secondary schooling and undertake a 2-year programme of training including teaching practice. After successfully completing the programme, the person will be awarded a lower secondary diploma (LSD). To become an upper secondary school teacher, a person must have completed six years' education and under-

 $^{^2}$ In Rwandan context one credit is equivalent to 10 notional hours (Republic of Rwanda, 2015)

take a four-year program in university including teaching practice." (Republic of Rwanda 2007d, p. 17)

Currently, there are 45 tertiary education institutions in Rwanda which quality assurance is overseen by the Higher Education Council (HEC). Among these institutions, 10 are state institutions (owned by the government) and 35 are non-state (owned by non-government organizations) (Republic of Rwanda 2016a, p. 54). Among these HLIs, 15 offer education related programs. One of these 15 HLIs is the University of Rwanda – College of Education, which is a government University.

Higher education in Rwanda expanded very rapidly after the 1994 genocide, both in terms of students' numbers and HLIs numbers (World Bank 2003, p. 135–164 & Republic of Rwanda 2014a) and the modes of attendance varied. In addition to day programmes which require full time participation, other attendance modes (weekend, evening, distance, online, holidays ...) emerged offering opportunities to upgrade the qualification levels at higher education (HE), so that already employed persons were able to participate through evening, weekend, holiday, distance and online programmes. With respect to the abovementioned opportunities, primary teachers got the possibility to upgrade for secondary schools. Some teachers made use of these opportunities and enrolled in different Rwandan HLIs to meet the qualification requirements as set in the teacher management policy (Republic of Rwanda 2007d, p. 17).

Historical background of teacher education in Rwanda

As mentioned above, teacher education in Rwanda is delivered by both state and non-state HLIs. On the side of state HLIs, in 1963 the first university in Rwanda (called at this time National University of Rwanda) was founded. Even though teacher education was the peaking priority, this was not always visible in the educational policy. Since 1981, students were trained to become secondary teachers with only 12.5% of the total number of credits assigned to professional courses. They were completing the program without an adequate preparation towards a

teaching career (Nzabalirwa 2010, p. 825–826). In 1998, the Faculty of Education was opened, where the study duration changed also from three years to four years. This faculty had a mission of training teachers for secondary schools as well for TTCs (Nzabalirwa 2010, p. 826–827). Even though it went through many changes and problems, teacher education existed before 1998 contrary to what is mentioned in the teacher development and management policy which states that it started after 1998 (Republic of Rwanda 2007d, p. 5)

Besides the National University, there was the National Institute of Education, which was assigned a mission of training secondary teachers, providing in-service teacher training for secondary teachers and conducting educational research. The Institute was run by the Government of Rwanda under the funding of the United Nations Development Program (UNDP) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO) (World Bank 2003, p. 136). However, the Institute did not last yet it was expected to contribute to secondary school system development. It opened doors in 1966 and closed 1981 due to lack of financial support (Nzabalirwa 2010, p. 827–828; World Bank 2003, p. 136). Since then, the Institute was integrated in the National University of Rwanda (Rugengande 2008, p. 35; World Bank 2003, p. 137).

During the 1994 war and genocide, which destroyed and impaired all sectors of activities in Rwanda, teacher education came as well to an end. Not only infrastructures were destroyed, but also a big number of qualified teachers were killed, and others had exiled to neighbouring countries. To address this problem, the government of Rwanda established TTCs (1998), the Kigali Institute of Education (1999) and National Colleges of Education (NCoE) (2007). These institutions were given a mandate of providing well trained primary and secondary teachers (Nzabalirwa 2010, p. 828–831). The training of secondary school teachers was solely assigned to KIE as since 2006, the faculty of education of the National University of Rwanda was closed (Nzabalirwa 2010, p. 827). Later on when the University was merged with different higher learning institutes into University of Rwanda in 2013, the Kigali Institute of Education

and the National Colleges of Education formed together one of its six Colleges called "College of Education". One year later, the two NCoE namely Rukara and Kavumu were combined at Rukara in 2014 and since 2017, the head quarter of UR-CE moved from Kigali to Rukara.

As mentioned above, teacher training in Rwanda was since its beginning not only an affair of state institution but also of some non-state HLIs. Before 1994, there were three non-state HLIs offering education programs besides the NUR. The Adventist University of Central Africa (AUCA) started in 1978 but was opened officially in 1984 (Rugengande 2008, p. 34; http://www.auca.ac.rw/about-auca/history-auca/). During this time, it was operating at Mudende in former Gisenyi "prefecture" and currently it is located in the Western province. It was closed two years (1994-1996) due to 1994 Genocide and moved to Kigali after reopening doors in 1996 till now (http://www.auca.ac.rw/aboutauca/history-auca/). The "Institut Supérieur Catholique de Pédagogie Appliquée" (ISCPA) was created in 1986 and did not reopen doors after 1994 (World Bank 2003, p. 137). ISCPA was created by the Catholic Church in Rwanda under the funding of "Université Catholique de Louvain" in Belgium for sustaining the training of secondary teachers (Rugengande 2008, p. 34; Linden & Linden 1999, p. 389). In 1993, the "Institut Supérieur de Pédagogie de Gitwe" (ISPG) started and closed one year later due to 1994 genocide. It reopened doors in 1997 (World Bank 2003, p. 138). ISPG was created by a parents' association, which was owning a secondary school at that time (Rugendande 2008, p. 34). After 1994, the number of non-states HLIs increased remarkably towards the 2000s. Currently, there are 15 among 35 non-state HLIs which offer education related programs (http://hec.gov.rw/IMG/pdf/approved_ academic_programs_of_private_hlis.pdf).

Quality standards for higher education in Rwanda

There is no specific document one may refer to for teacher education quality standards in Rwanda (Rubagiza, Umutoni & Kaleeba 2016, p. 209), except the teacher development and management policy, which gives the main guidelines (Republic of Rwanda 2007). The descriptions

below refer to higher education policies in general. In Rwanda, all HLIs are instructed to:

"Support the social, economic and political goals of the nation. The principle of academic integrity, high-quality teaching and learning, providing equal opportunities, seeking excellence and increasing access by developing more opportunities for flexible learning both on and off campus must be central to the planning and delivery of our taught provision. Excellence in Learning and Teaching is the centre of all our activities, and the importance of continually improving them does not need justification." (Republic of Rwanda 2007b, p. 2)

In the handbook for academic quality assurance, enhancement and the maintenance of standards in higher education, academic quality is defined as "how well the learning opportunities available to students help them to achieve their award. It is about making sure that the appropriate and effective teaching, support, assessment and learning opportunities are provided." (Republic of Rwanda 2007a, p. 9). From this handbook, it is required that English is the sole medium of instruction and learning at higher education except while teaching another language (Republic of Rwanda 2007a, p. 17). This is remarkable as until 2008 French was the official language of instruction (Nizeyimana, Nzabalirwa, Mukingambeho, & Nkiliye 2020, p. 56) and the language spoken in Rwanda is Kinyarwanda.

Students are allowed to register on full-time basis or part-time basis. The differentiation between full time and part time student is done with respect to number of hours dedicated to academic work a week. Full time students are required to assign 40 hours while part time student should assign 20 hours (Republic of Rwanda 2013b, p. 2; Republic of Rwanda 2007a, p. 22). Programmes should be elaborated "to meet the needs of students, taking into account programme length / duration, modes of attendance, location, structure and sequence, optional elements etc." (Republic of Rwanda 2007a, p. 108). Teaching methods must be "innovative, varied, and appropriate to the stated learning outcomes and make effective use of available facilities, equipment, materials and aids" (Republic of Rwanda 2007a, p. 110). The learning, teaching and assessment policy requires university teachers the use of various methods like:

"Discovery approaches: Projects, independent studies, thesis/dissertation work, construction tasks (building prototypes, writing computer programmes, creating web pages, artistic and literary work), independent reading, and case studies. Participatory approaches: Group work, focused group discussions, debates, seminars, conferences, panel discussions, peer tutoring and tutorials. Presentation approaches: Lectures, films and slide shows, video shows, performance, demonstration and exhibition. Application approaches: Practical exercises, simulations, teaching practice, internships, field and community attachments, case studies of real-life problems." (Republic of Rwanda 2007b, p. 5)

Coursework and assessment must be systematically planned (Republic of Rwanda 2007a, p. 110).

Challenges in Rwandan teacher education

In Rwanda, "teachers are expected to be sufficiently trained and competent to help in the moulding of young people to translate theoretical knowledge into employable skills" (Republic of Rwanda 2007d, p. 6). The number of qualified teachers does not increase proportionally with the quality of secondary schools' graduates whom competences are still questionable by both the labour market and HLIs as admitting graduates for further studies (Nizeyimana, Nzabalirwa, Mukingambeho, & Nkiliye 2020, p. 60–64; Iwakuni, 2017, p. 539–543). No research has been conducted in this domain but through various documents some challenges faced in the preparation teachers can be pinpointed.

International consultants while developing the teacher management policy highlighted a number of problems in the training of primary teachers in TTCs. These problems include "the poor alignment of teacher training curriculum with the school curriculum, the limited emphasis on acquiring basic teaching skills, the limited teaching experience of teacher trainers, insufficient resources and the poor academic quality and the limited commitment of candidates to the teaching career" (World Bank 2011, p. 118). TTCs graduates show also limited knowledge of and practice in the primary school curriculum due to different factors including the limited number of periods allocated to teaching practice (only 4 out of 30 to 35 periods a week during the first 2 years and 6 periods during the last year). In addition to this, there is limited time (3 or 4

weeks) for internship done during the last year and which is in most cases not supervised. Teachers teaching in TTCs express problems like relevant teaching experience due to limited specialized training allowing them to become teacher trainers. Another problem regarding TTCs' teachers among others is the conservatism towards teacher centred pedagogy (World Bank 2011, p. 118). Here it is important to mention that TTCs teachers are mostly graduates of faculties of education in different Rwandan HLIs.

At higher education, major challenges faced at Colleges of Education include the implementation of learner centred pedagogy (LCP), insufficient time for internship (3 months at the end of the 2 years' program) and for professional modules (only 20%). However, active learning in groups is encouraged to mitigate the problem related to the implementation of LCP (World Bank 2011, p. 119). In national education related policies, more emphasis is assigned on state HLIs yet a significant number of student teachers is trained in non-state HLIs (See Republic of Rwanda 2007d, p. 17).

1.1.2 Teacher education in regard to educational discourse

Literature shows that the quality of an education system depends mainly on how effectively its teachers have been trained. Having the passion of teaching is not enough, but a quality educational background and training matters most (UNESCO, 2014, p. 233). Teachers are the product of the educational systems, they went through. In case the system is of low quality, effective candidates for teacher training cannot be expected (UNESCO, 2010, p. 118). Especially in Sub-Saharan countries, teachers do not receive a quality training to allow them to enter the profession with required competences (UNESCO, 2014, p. 233–234). Scholars argue that the problem of low teaching quality in developing countries results from teacher training programmes which fail to provide effective teaching practices (Akyeampong, Lussier, Pryor & Westbrook 2013). A theory-practice gap is in particular observed in university-based teacher education programmes where they are accused to pay much attention on theory (Darling-Hammond, Hammerness, Grossman, Rust & Shulman

2005). In these countries, there is a problem of limited time given to teaching practice, and school-based experience, which in some African countries come at the end of the programme, thus denying student teachers opportunities for feedback and critical reflection on classroom experiences. This problem is reinforced by a lack or irregular feedback from the mentors (Pryor, Akyeampong, Westbrook, & Lussier. 2012, p. 488), yet "teachers, now more than ever, are under enormous amount of pressure to help their learners succeed" (Wedell 2017, p. 12).

It is known that teacher training should normally differ a lot from training to other domains of activity (Yelpaze & Yakar 2020; Vavrus, Thomas & Bartlet 2011). This means that the preparation of teachers should make a difference in comparison to the preparation of students prepared to work in other domains of activities. This is because student teachers come at university having a big school back package, that is, a long school experience on teaching and learning process from their previous school life (Korthagen et al. 2008, p. 39), whereas engineering students or medicine doctors' students for instance join these programmes without prior experiences with regard to these domains. Learning about teaching is done also through the conversation held between adult people and young ones (Korthagen et al. 2008, p. 39). If this school back package is not well touched during student teachers training, they tend to teach as they were taught before. This is also highlighted among challenges hindering the implementation of learner-centred pedagogy in sub-Saharan Africa where authors of this study say that "without highquality initial training, teachers largely teach the way they were taught. It is difficult for them to adapt and adopt learner-centered pedagogy" (Vavrus, Thomas & Bartlett 2011, p. 11).

1.1.3 Discourse on feedback in teacher education

Throughout the history of humankind, "human beings have survived because of their deeply ingrained habits of correcting one another, telling each other what they know, point out the moral, and supplying the answer. This has been acquired and lived out in families and classrooms" (Feiman-Nemser 1983, p. 152). Besides, feedback is perceived

crucial for teacher effective professional development. It helps teachers become aware about their pedagogical actions: strengths and weaknesses, and more especially, know how to support their learners (Lipowski & Rzejak, 2015, p. 38). Feedback is one of the elements for effective teacher professional development and "critical components of adult learning theory" (Darling-Hammond, Hyler, & Gardner, 2017, p. 4 & 14). The UNESCO Global Monitoring report shows that in poor countries, "teachers often enter the profession" without enough subject knowledge "because their own education has been poor" and this leads to low learning quality of their own students. To overcome such a problem, teachers need to have effective training on how to teach (UNESCO 2014, p. 237-238). They need to be introduced to strategies for dealing with students from various backgrounds, especially those teaching in remote or poor areas. Even though lacking in some teacher education programmes, using diagnostic and formative assessment as tools for identifying and helping students with learning difficulties needs to be integrated. Equipping teachers with such skills during their initial training is "vital" as they acquire "a strong foundation for supporting children with diverse learning needs" (UNESCO 2014, p. 239). This is because teaching quality is highly influenced by the kind of relationship teachers establish with their students in the classroom, and the "ability to do this well does not come naturally to many teachers" (McClelland & Varma 2012, p. 23). "Motivating and training teachers is therefore a crucially important issue" (Krogull et al. 2014, p. 34).

Literature shows that while pre-service training, students should be given opportunities for teaching practice to make sure that they are well prepared and ready for the teaching profession (UNESCO 2014, p. 240). Lack of teaching practice leads to poor teacher training which, in turn, inhibits teachers' self-esteem, and therefore, students are affected (Krogull et al. 2014, p. 34). A research conducted in six African countries shows that student teachers miss opportunities for "feedback and critical reflection on classroom experiences" because of insufficient teaching practice and their placement at the end or after the "training programme" (Pryor et al., 2012, p. 488). In the same line, a study conducted

on fundamentals of teacher education in Sub Saharan Africa shows that "college and university education programmes, in general, have not created sufficient time for student teachers to try out methods based of LCP and to receive constructive feedback from tutors and peers" (Vavrus et al. 2011, p. 89). The divide between theory and practice in teacher education has been mentioned by different educational scholars. Besides the time for teaching practice, which is not enough, and teaching practice that comes at the end of the programme, the quality of feedback during supervision of internship is also questionable (Flores 2014, p. 245; Flores 2006, p. 2047–2049). A study on teacher preparations shows that some trainees in the indicated programme experienced "overly negative and harsh feedback in its delivery and/or content" (Brandt 2008, p. 40). One trainee said for instance:

"Some people were given very cutting feedback which really knocked them back. There were teachers at time [...]. I really don't think the entire thing is important enough to get or be upset over. May be this was tactical on the part of the tutors like in the army ... knock them down to build them up." (Brandt 2008, p. 40)

However, research shows that for enhancing "teacher feedback practices for the sake of effective student learning, the hope lies in teachers and in educating them" (Lee 2016, p. 526).

1.1.4 Feedback in the Rwandan educational system

In the Rwandan context, different policies, established either at national level or institutional levels, recognize the importance of good quality feedback to promote students' learning. The handbook for academic quality assurance and enhancement and the maintenance of standards in higher education, for instance, states that academic feedback should support students to promote their learning (Republic of Rwanda 2007a). In the same view, the national learning, teaching, and assessment policy recommends feedback to be an implicit element for any form of assessment given to students to help them meet desired competences (Republic of Rwanda 2007b).

According to the Ministry of Education (MINEDUC), "whereas the issue of relevant curriculum is a priority issue which needs to be ad-

dressed, the changes faced are in producing sufficient number of trained teachers who are motivated, committed and opting to stay in the profession" (Republic of Rwanda 2007d, p. 9). Additionally, "Teacher training through both pre-service and in-service teacher training using a range of methods (that is participatory, learner-centred and gender sensitive approaches) including the use of distance education, shall be strengthened" (Republic of Rwanda 2007d, p. 10). It is specified that "skills in monitoring and assessing learning" constitute one of the important elements to compose the curriculum framework for a coherent teacher education (Republic of Rwanda 2007d, p. 15). In addition to this, formative assessment should predominantly be assigned to students for feedback to their performance while summative assessment should be for academic credit award (Republic of Rwanda 2007a, p. 9; Republic of Rwanda 2007b; p. 6). The national general academic regulations recommend that grades and feedback on formative assessment should be provided to students within three weeks after the assignment is done or at least a week before the date of doing the next assignment / final examination on the same module (Republic of Rwanda 2013b, p. 7). This policy stipulates clearly that students should get grades along with feedback on completed works / assignments. The national student support and guidance policy specifies that all students without exception should have right to effective academic support including but not limited to formative and summative feedback on academic progress (Republic of Rwanda 2007c, p. 5). Moreover, the following guiding questions for the national LTA policy stress the need of feedback:

"(1) To what extent do our current ways of teaching, learning and assessment encourage progressive development of independent learners equipped with necessary knowledge, skills, attributes, and confidence to play a constructive role in the employment sector, ready to contribute to the social economic and political development of Rwanda? In other words, to what extent do they produce graduates who can take responsibility for decision-making, have the judgment to know when they lack the knowledge or skills to deal with a problem and are able and willing to remedy these shortcomings? (2) Is there a mismatch between workplace expectations and student skills and competences? Are we facilitating the development of the skills and qualities needed for effective employment, as well as just subject knowledge? (3) Are teaching staff provided with the necessary and

appropriate training to implement innovative, imaginative, and effective ways of teaching informed by current research and linking research and teaching? (4) Do the forms of assessment we use test and encourage the development of skills and competence properly as well as knowledge? (5) Are staff provided with the necessary resources and facilities to implement effective teaching?" (Republic of Rwanda 2007b, p.3).

To ensure effective learning opportunities, the TLA policy recommends that students should know their strengths and where more efforts are needed for later improvement. Feedback should then inform students "about any difference between the intended learning outcome and what has been achieved and enables the learner to identify any action required to manage this difference" (Republic of Rwanda 2007b, p. 6).

Against this background, studies are needed about the reality of those normative assumptions. According to my knowledge, until now no research has been conducted yet in this regard except for two studies that have been conducted on students' learning assessment in two Rwandan HLIs. These studies showed that students were not satisfied with the way feedback is provided (Rwanamiza 2011 & Mugisha 2010). This seems to be a common concern for higher education students, as educational discourse on feedback indicates that university students around the world are mainly not satisfied with written feedback given by their teachers (James, Krause & 2010; Nicol 2010). In one of these researches conducted in Rwanda, it was as well revealed that most of teachers in HLIs are still conservative with regard to traditional teaching methods (Rwanamiza 2011). In this regard, literature shows that there is a relation between students' perceptions on feedback and the quality of teaching and learning process (Dowden, Pittaway, Yost & McCarthy 2013, p. 359). Considering the influential role of feedback in teacher education and given the fact that few studies in this domain have been conducted in Rwanda, this study finds a relevant contribution in the discourse about teacher education in Rwanda.

1.2 Research questions

The main research question for this study is "How does teacher education look like regarding feedback in the Rwandan context?"

This research question is operationalized under four sub-questions comprising of: (1) what kind of learning situation do student teachers face concerning feedback in the Rwandan context? (2) What understandings do student teachers have on feedback they receive from their teachers at university? (3) What kind of feedback do student teachers get? and (4) How do student teachers see the contribution of feedback on the quality of teaching and learning process?

1.3 Methodology

Given that little is known about the processes of achieving quality and the role of feedback concerning teacher education and based on the purpose of this study, this study was conceptualized as qualitative research (see chapter 3). In addition, scholars recommend this approach especially while conducting research on human actions and experiences (Savin-Baden & Major 2013; Forlizzi & Ford 2000, p. 423). Data were collected using semi-structured interviews with 32 student teachers who have been selected from different Rwandan HLIs using theoretical sampling strategy. A sampling table was progressively filled to help reach the saturation (see 3.3). All interviews were done in Kinyarwanda (the mother tongue of interviewees), and then translated to English after the transcription to facilitate the data analysis and collaboration for the validation of the interpretation. Qualitative content analysis has been chosen and used for data analysis method. These interviews have been analysed using intertwined deductive-inductive approach (see 3.4). The coding was done by using MAXQDA (see 3.4.3). For quality control, both intracoding and inter-coding were used. The generalisation of data was processed by abduction (see 3.4.5), by finding in the data the criteria and then defining types of feedback experienced by student teachers in Rwandan HLIS (see 3.4.5 and 4.2). The abduction was done via a deep analysis of a number of materials such as interview transcripts, the coding system, portraits of all interviews (see 4.1) and the sampling table (see.3.4.5). The proceeding included the comparison of the quotations from different interviews in relation to a given code.

1.4 Structure of the thesis

The presentation of this study is organized in different chapters. In chapter two, I present the state of research related to feedback and teacher education. In this chapter, I first present the literature review on the main concepts of this research such as education quality, teacher education, and feedback. In the next section of this chapter, discourse on feedback in teacher education focusing mainly on the place of feedback in teacher education, feedback and teaching practicum, student and teachers concerns about feedback and teacher education in a globalized world are described. The chapter ends with a brief specification of the research questions.

In chapter three, the methods and methodology used in this research are described. In this regard, the researcher provides explanations on the choices of qualitative approach, why semi-structured interviews, as well as the qualitative content analysis for analysing the collected data. The chapter provides detailed explanations about how the research was conducted, that is, how the different processes including sampling, data collection, processes of data analysis such as transcription and translation of interviews, coding, and abduction are described. In addition, strategies used to ensure the quality control of findings and ethical considerations are explained.

Chapter four is concerned with the presentation of findings. In this chapter, the individual portrait for each interview is presented using anonymous names given to interviewed student teachers, their HLIs, as well as their age. This is followed by the description of the field where the process of abduction that led to the typology of feedback is explained. In the description of this typology, each type is described using a list of criteria that emerged from the collected data. These three types are instructional feedback, correctional feedback, and administrative feedback which are described in related to aim of feedback, communication process (time, channel and source), role played by the student teachers and teacher educators, requirement for receiving feedback, and student teachers positions regarding feedback (feeling and conception). The chapter ends with a summary of results.

Chapter five is about the summary of findings and discussion. The summary of findings is described in six aspects such as (1) Student teachers experience a variety of feedback (2) Student teachers have divergent understandings of feedback, (3) Delayed feedback leads to increased learning uncertainty among students, (4) Communication of feedback creates different forms of relationships between student teachers and teacher educators, (5) Student teachers learn implicitly from teacher educators how to provide feedback, and (6) Missing common standards in internships. The second part relates the findings with the discourse by a discussion of feedback and its meaning to educational quality in the perspective of student teachers, feedback environment and teacher professionalism, and then feedback and development in the society.

The last chapter focuses on the implications of the study. First suggestions for further research are given, followed by suggestion for the practice. The chapter ends with a brief description of the limitations of the study.

2 State of research on feedback and teacher education

In this section, a brief overview of the literature review on the main concepts in this research such as education quality, teacher education research, and feedback is given (see chapter 2.1). I also explain the necessity of feedback not only for education quality in general but particularly for the quality of teacher education (see chapter 2.2.). In the next section, students and teachers' concerns about feedback, and teacher education are described (see chapter 2.3). A brief description of teacher education in regard to globalization is also presented (see chapter 2.4). Against this background, the research desideratum becomes obvious and I justify the need to conduct this study both for the science and for the society of Rwanda (see chapter 2.5.).

2.1 Conceptualization of the key concepts

In the section, the key concepts in this study namely educational quality, teacher education, and feedback, are explained. As indicated in the first

chapter, this study focuses on the experiences of student teachers regarding feedback, and how these experiences affect their learning quality. Based on the role assigned to teachers in overall quality development (Yelpaze & Yakar 2020), the concept of educational quality is first explained. Teacher education is described from the lens of literature. The argumentation line is organized in way that the research presents the aspects of quality in teacher education, an example of a model for learning to teach, and the place of role modelling in teacher education. Being the central concept in the study at hand, feedback is explained especially in the context of teacher education.

2.1.1 Educational quality

Educational quality is a multi-dimensional concept. Education quality is explained as an education, which helps students to learn effectively towards acquisition of required competences to be applied in solving real world problems. It should as well support teachers to understand and shape their role accordingly in order to assist their students during their learning process (Biggs 2001). The concept of education quality has been also part of the debate during teacher unions. Here, Fredriksson (2004) gives a number of observations that have been made. One of them is that quality education is a concept, which is not static but rather which evolves over time and by context (Leu 2005; Fredriksson 2004), "it must also be relative to particular learners and their circumstances" (Fredriksson 2004, p. 4). These discussions show that a good education should equip young generation with competences they will need for fulfilling their role as members of a given society and coping with the changing world. Here, they are expected to learn "to be critical and responsible citizens". Education quality is regarded as "an education that best fits the present and future needs of the particular learners in question and the community, given the particular circumstances and prospects". The same author stresses the importance of "interaction between teachers and students" for education quality. He disagrees with those who see education quality as "process of consumption" (Fredriksson 2004, p. 4).

Referring to the discourse above, it becomes clear that achieving educational quality needs quality in input and process that is measured by outcome and output. This is reinforced by the literature that shows that inputs, process, outputs, and outcomes factors should be considered while appraising the quality of an education system (IUCEA 2010; UNESCO 2004). As contended by the educational quality discourse, teacher quality matters especially regarding input factors (Hattie 2009). This explains the essence of the study at hand. The discourse about teacher education is described in the next section.

2.1.2 Teacher education research

The UNESCO Monitoring report of 2014 highlights a global learning crisis where around 250 million of children all over the world do not acquire the basic competences in numeracy and literacy. Two-third of these children are in developing countries. Effective teacher education is one of the strategies suggested to overcome this challenge (UNSCO 2014). Besides, literature show that the role of teachers is central to ensure that students acquire needed competences in the 21st century and for the achievement of 2030 Sustainable Development Goals (Wedell 2017; UNESCO 2016; Vavrus, Thomas & Bartlett 2011). These competences need to be assured in advance through high quality of teacher education (Sanyal 2013) as the quality of an education system depends greatly on the quality of its teachers (UNESCO 2014). Other scholars also affirm the fundamental role of teacher quality in improving the learning quality (see Neihart & ling 2017; Darling-Hammond 2006 & 2000). Additionally, effective initial training and preparation of teachers is required for quality education to achieve its aim of producing good learning outcomes (UNESCO Institute for Statistics 2006). Moreover, being an excellent teacher is not something born with but rather a product of received education and training accompanied with experiences (Fredriksson 2004). Furthermore, for education quality to be assured student teachers should be trained in the same way they are expected to teach (Vavrus, Thomas & Bartlett 2011; Leu 2005). Quality education should not be regarded solely as teachers' duty but rather teachers need various supports

beside their efforts in the improvement of education quality from different stakeholders, which should include in the first run provision of high-quality attractive teacher education and professional development (Fredriksson 2004). UNESCO reports that "while many countries have made impressive gains in access to education over the past decade, improvements in quality have not always kept place" (UNESCO 2014, p. 191). It is therefore vital to reflect on the quality of teacher education. In the next sections, the aspects of quality in teacher education, a model for learning to teach, and the place of role modelling in teacher education will be outlined.

Aspects of quality in teacher education

Around the world, schools as well as teachers are now expected to play a complex role in order to integrate and adapt to ongoing changes including modern technologies, and cultural diversity. To cope effectively with this situation, teachers are invited to work on their professional development (Ellis & Loughland 2017, p. 51; OECD 2009, p. 49). Quality of teacher education is also indicated as one of the important strategies to improve the situation (UNESCO 2014, 232). The effectiveness of teacher education is also emphasized in the following words:

"The current mantra, that teacher make the difference, is misleading. Not all teachers are effective, not all the teachers are experts, and not all the teachers have powerful effects on students. [....] The important consideration is the ways that teachers differ in their influence on student achievement – what is that makes the most difference?" (Hattie 2009, p. 108).

The same author shows that the task should be to ask about evidence of what works best in teacher education (Hattie 2009, p. 111). Hattie shows that teachers who make a difference are those "who teach in a most deliberate and visible manner" (Hattie 2009, p. 22). These teachers can help students to achieve different levels of learning by providing them with tailored individual support. This needs an experienced teacher who is able to "maximize the power of feedback" (Hattie 2009, p. 23) for supporting students who are struggling where they have problems in their learning process (Hattie 2009, p. 22–23). This is in line with the quote of

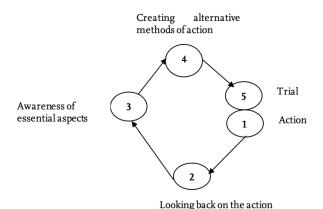
William Arthur Ward, a famous American writer, who said that "The mediocre teacher tells. The good teacher explains. But it is the superior teacher who demonstrates and the greater teacher who inspires" (Chua & Chye 2017, p. 62). The discourse on teacher education also stresses the importance of its transformation to ensure that teachers are equipped with competences necessary to prepare learners for the 21st century and beyond (Low & Tan 2017, p. 22). In their chapter of mentoring and school partnerships, Png and Liu stipulate that effective teacher education is necessary for ensuring that good teachers are trained (2017, p. 217). To train good teachers, student teachers should, during initial teacher training, learn "ways of teaching, the value of teaching, the positive relationships they can foster with young people and their desire to make a difference" (Tan, Liu, & Sim 2017, p. 48).

Literature shows that education, in the former time, used to be "textbook-driven, preoccupied with content and teacher-centred". But nowadays, active participation in the teaching and learning process is sought. This does not leave behind teacher education, because "underpinned by the principles of constructivism and social constructivism, it is clear that teacher education experiences need to move beyond "chalk and talk" to incorporate social interaction and involve the student" (Chua & Chye 2017, p. 62). In this line, scholars argue that teacher educators should shift from a traditional teaching approach to a participatory approach where student teachers are given opportunities to reflect on their own teaching experiences, and teacher educators induce them to become active contributors in their personal professional development (see Chua & Chye 2017; Korthagen et al. 2008; Tsien & Tsui 2007). For 21st century teacher education, they insist on the role of "a two-way interactive learning process" (see Chua & Chye 2017, p. 63). As indicated in chapter one, student teachers have experiences about teaching taken from their previous schooling times, which are not always leading in the future expectation towards schooling. Allowing student teachers to play an active role in their own learning process is what helps them overcome the subjective beliefs they might have about teaching as students (Gardner & Williamson 2007, p. 695).

A model for learning to teach: ALACT Model

According to Korthagen et al. (2008, p. 45), "Learning in student teaching is a form of experiential learning, which can ideally be described by ALACT Model consisting of five phases namely (1) Action, (2) Looking back on the action, (3) Awareness of essential aspects, (4) Creating alternative methods of action, and (5) Trial. (See figure below)

Figure 1: The ALACT model

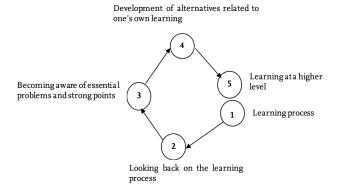


Source: Korthagen et al. 2008, p. 44

As per the model above, "helping individual student teachers become reflective" should be at the centre of any teacher education programme (Korthagen 2008, p. 108). "It is essential for teachers to be able to systematically reflect, think and continuously endeavour to strengthen their competencies so that they can provide effective teaching and learning to their students" (Tan, Liu, & Low 2017, p. 6). An ancient scholar emphasized that "we don't learn from experience. We learn from reflecting on experience" (Dewey 1925, p. 13 as cited in Chua & Chye 2017, p. 61). It is however not easy for teacher educators to prompt student teachers and lead them to become reflective teachers. It becomes easier when the teacher educators see their major role as facilitators (supporting learning to teach) (Korthagen 2008, p. 127–129). As it is mentioned

below in 2.2.1, the best way to achieve this is for teacher educators to build positive relationship with their students (Loughran 2006), using constructive feedback (UNSW 2014, Vavrus et al. 2011). Though discursively indicated to be the engine in the process of reflection on individual teaching, the aspect of feedback, appears implicitly in the model below. As per this model, it is difficult to get student teachers "learn about learning to teach". But, once student teachers become aware of their own learning process, it becomes easier for teacher educators to support them (Korthagen 2008, p. 129). This is in line with what Hattie says that effective learning is achieved when it comes from the viewpoint of the students (2012).

Figure 2: Model for learning to learn



Source: Korthagen et al. 2008, p. 128

Teacher education and role modelling

Literature shows that "one important player in the total ecology of teacher education is the teacher educator. His or her role is crucial". The same authors place role modelling by teacher educators at the core of teaching to teach (Lunenberg, Korthagen & Swennen 2007, p. 588). Besides, "Cognitive science affirms that people learn more effectively when ideas are reinforced and connected both in theory and in practice" (Darling-Hammond 2006, p. 306). This indicates the need for quality teacher

education for abolishing the common adage that "teachers teach the way they have been taught – not the way they have been taught to teach" (Blume 1971, p. 412). In this article, the author also emphasizes that student teachers should be shown good examples during their initial training, as they should be taught and treated in the same way they are expected to teach and treat their own students (Blume 1971, p. 412). In this situation, teacher educators are called to be good role models to student teachers. Teacher educators are expected to play what these authors have called "complex dual role". Teacher educators have the role of not only teaching student teachers how to teach, but also give them good examples of how it should be done, as work on both, the content and processes. According to these authors, this dual role makes the teacher educators' job different from other professions (Lunenberg, Korthagen & Swennen 2007, p. 588).

For effective teacher education, a paradigm shift is necessary for student teachers to see teaching differently "from their own experiences as students" (Darling-Hammond 2006, p. 305). Student teacher needs to be trained "to think like a teacher" and "to act as a teacher" (Darling-Hammond 2006, p. 305). This is because student teachers join teacher education programmes already having ideas about teaching and learning process from their school time experiences (Putnam & Borko 2000). To face this challenge, teacher educators are called to use participative and active methods so as to allow student teachers be "active learners able to construct their own understandings", not "receptors of information" (Lunenberg, Korthagen & Swennen 2007, p. 587).

For quality teacher education, teacher educators are asked to pay attention to "how they teach student teachers" (Niyibizi 2021, p. 89). With regard to modelling in teacher education, two main forms are defined: implicit modelling and explicit modelling (Lunenberg, Korthagen & Swennen 2007, p. 597). In contrast to explicit modelling, findings in a study conducted in Rwanda using interviews with teacher educators shows that with implicit modelling, teacher educators do not make explicit the reasons for their pedagogical choices and practices (Niyibizi 2021, p. 90). The same author argues that implicit modelling, though it

may be beneficial to student teachers, it has less impact compared to explicit modelling. Interviewed teacher educators are aware about the importance of role modelling during the initial training of student teachers. However, this research shows that "participants' understanding of role modelling is about implicit exemplar practices and behaviour" (Niyibizi 2021, p. 100).

The discourse described above shows that in the learning journey of student teachers, teacher educators play a crucial role. In the study at hand, the researcher is interested to investigate on one aspect of quality namely feedback and how it contributes to the quality of teacher education, especially from students' perspectives. The next section explains this concept: its meaning, types, characteristics as well as its importance in teaching and learning process.

2.1.3 Feedback

Feedback is commonly understood as "a dialogue between people which reflects back how one person sees another person's behaviour or performance" (https://intelligentdialogue.com/management/what-is-feedback-2/). However, the concept of feedback has been explained by many educational scholars (see Nijolé 2012; IUCEA 2010; Hamid & Mahmood 2010; Vitiené & Miciuliené 2008; Hattie & Timperley 2007; Nadine 2006; Leu 2005). In the context of teacher education, especially regarding teaching practice, feedback is defined as an "information supplied to trainees concerning some aspect of their performance on a task, by a peer or a tutor, with a view to enhancing practice" (Brandt 2008, p. 39). In this study, feedback is understood as a dialogue between teachers and students that should be done constructively in order to explain to students how they are meeting predetermined learning outcomes and then to advise them what they need to do to bridge identified gaps for subsequent improved performances (Nyiramana 2017; Hamid & Mahmood 2010; Hattie & Timperley 2007; Nadine 2006; Ende 1983).

Types of feedback

Hattie and Timperley (2007, p. 81) show that feedback is "one of the most powerful influences on learning and achievement, but its impact can be either positive or negative". This is determined by the type of feedback given and how it is given. However, the main purpose of feedback should be to reduce the gaps between the current learning situation and objectives to be achieved. For this, "effective feedback must answer three major questions asked by a teacher and/or by a student: Where am I going? (What are the goals?), How am I going? (What progress is being made toward the goal?), And where to next? (What activities need to be undertaken to make better progress?)" (Hattie & Timperley 2007, p. 86). These three questions are respectively associated to the three components of feedback: feed-up, feedback, and feedforward, that constitute a strong feedback system and is required for its fully implementation (Fisher & Frey 2009, Hounsell 2008). The aspect of feedforward is often forgotten (Fisher & Frey 2009), "yet it increases the value of feedback to the student by focusing comments not only on the past and present but also on the future" (Hounsell 2008, p. 5).

Research shows that there exist different types of feedback that are given to higher education students. These types are differentiated according to how the feedback is given, who gives the feedback, and when the feedback is given (State of New South Wales, Department of Education and Communities 2015; Krogull et al. 2014, p. 74-75; Hatziapostolou & Paraskakis 2010, p. 111). According to how the feedback is given, the types of feedback are evaluative feedback, descriptive feedback, formal feedback, informal feedback, feedback during learning, feedback after learning, oral feedback, and written feedback (State of New South Wales, Department of Education and Communities 2015). It appears from literature that the common type of feedback given to students is feedback given in the form of grades (Hounsell 2008). However, this kind of feedback does often not lead to suitable results. It may lead to high motivation or high demotivation depending on the student performance, or to misunderstandings and then inhibit the learning process as students may interpret good marks as a chance, and bad marks as an

accident. With marks as a feedback, students do not know what they have to improve and how to do it (State of New South Wales, Department of Education and Communities 2015; Krogull, et al. 2014, p. 75; Rowntree 1999, p. 18-19). Evaluative feedback is another name for feedback in the form of grades, but in this case, it can also be given as brief general comments like good, continue like this, etc. (State of New South Wales, Department of Education and Communities 2015). On the contrary, descriptive feedback is "effective feedback that provides students with detailed, specific information about improving their learning" (State of New South Wales, Department of Education and Communities 2015, p. 2-4). In this process, the three major questions highlighted in the study by Hattie and Timperley (2007, p. 86) becomes effective. Informal feedback and formal feedback are other forms of feedback given to students (Hesketh & Laidlaw 2002, p. 247). For formal feedback, teachers have to prepare the feedback and use formal structure to deliver it to students, while informal feedback is feedback given to students at the time students are working on a given task. Feedback is seen as to be helpful if given effectively as it comes at the right time when students need it. The combination of formal feedback and informal feedback is thought to give students the opportunity of receiving progressive feedback, which is central to reach success in learning processes. However, informal feedback should, if possible, be given more frequently to allow students receive well-timed feedback (Hesketh & Laidlaw 2002, p. 247). In addition, feedback can be given either during learning or after learning. Feedback during learning – also called formative feedback – allows students to receive timely ongoing feedback for improving their learning process. Feedback after learning, which is also known as summative feedback, does not more often help students to improve their learning process as it is given when the course has been concluded (State of New South Wales, Department of Education and Communities 2015). Summative feedback is related to summative assessment, which is seen by some as establishing a power relationship between the teacher and students (Rowntree 1999). Formative feedback and summative feedback are

respectively associated to oral feedback and written feedback (State of New South Wales, Department of Education and Communities 2015).

In regard to who gives feedback, it may come from oneself or from peers. It is, in this case, called self-feedback or peer feedback. Self-feedback is signified to be "the ultimate goal of feedback for learning. During the provision of feedback, teachers have the opportunity not only to provide direction for the students, but to teach them. Through explicit modelling and instruction, the skills of self-assessment and goal setting, leading them to become more independent". Teachers are also called to teach students how to give feedback to their colleagues in an effective way as well as its importance (State of New South Wales, Department of Education and Communities 2015, p. 4). With self-feedback and peer feedback, students have then the opportunity of ongoing feedback supplementary to the teacher's feedback (State of New South Wales, Department of Education and Communities 2015).

In a nutshell, this section focused on describing the different types of feedback used in the teaching and learning process. In the next section, the characteristics of a good quality feedback are going to be described.

Characteristics of a quality feedback

To be effective, feedback needs to be well timed, clear, descriptive, specific, purposeful, meaningful, compatible with students 'prior knowledge, focused on students' actions not on their personality, and provide logical connections (Hatziapostolou & Paraskakis 2010, p. 112–113; Hattie & Timperley 2007, p. 104; Hesketh & Laidlaw 2002, p. 246). As per some scholars, this type of feedback is known as constructive feedback (Aslam & Khan 2020; Nyiramana 2017). However, "the effectiveness of feedback is influenced by the credibility of the person giving the feedback, the message itself and the recipient's readiness to respond" (Hesketh & Laidlaw 2002, p. 246). According to the study on teaching social competencies in post-conflict societies, effective feedback should be timely, encouraging, personalized, non-judgemental, specific, justified, and explain consequences (Scheunpflug et al. 2012, p. 54). A

study by Brinko (1993) on the practice of giving effective feedback to improve teaching through an extensive literature highlights a number of principles that are, in some respects, similar to or complementary the ones above. According to her, feedback is most effective when:

- "Feedback setting is psychologically safe.
- Information is gathered from a number of sources.
- Information is gathered from oneself as well as other. Because information from the self is more valued, better recalled and more credible than feedback from other sources.
- The information is perceived as credible, knowledgeable, and well-intentioned.
- The feedback is mediated by someone other than the individual who made the evaluative judgment.
- It is focused and contains relevant, meaningful, concrete information, accurate and specific data and irrefutable evidence.
- It focuses upon behaviours rather than the person.
- It is descriptive rather than evaluative.
- It creates a moderate amount of cognitive dissonance (cognitive dissonance creates a psychological climate that prepares people for change) and contains models for appropriate behaviour.
- It is given as soon as possible after performance and is considered as a process, not a one-time quick fix.
- Recipients voluntarily engage in feedback or actively seek it and are free to access it or not.
- It considers the recipient's amount of experience and the developmental stage.
- The recipient is able to select the way it is conveyed, and it contains a moderate amount of positive feedback with a selected and limited amount of negative feedback.
- Negative feedback is sandwiched between positive information, and negative information is self-referenced (that is, negative information that compares one's performance to other measures of one's ability).
- Positive information is attributed to internal causes (such as skill and effort).
 This produces a more favourable response toward the feedback.
- It reduces uncertainty for the recipient
- It allows for response and interaction, and it relates to goals that are defined by the recipient." (Brinko 1993, p. 575–593)

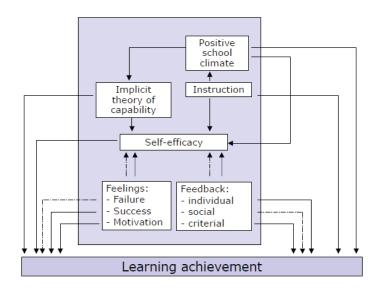
Feedback in teaching and learning process

Feedback appears explicitly or implicitly among the conditions for achieving quality teaching. For quality teaching to happen, for instance, there is a need of good classroom learning climate where all learners are h elped to reach established goals through the use of feedback among other factors (Vavrus, Thomas & Bartlett 2011; Hattie 2009). It is also known from research that for learning to take place, people need to be supported with a good learning climate accompanied with constructive feedback (Killen 2009). "Positive climate experiences can help students develop their potential" (Krogull et al. 2014, p. 47). Moreover, "there is growing recognition that people learn in different ways and that best practice pedagogy includes effective participation, early feedback and transparent assessment" (Gorinski & Abernethy 2007, p. 231, citing Smith 1991; Stables and Scott 2002; Hall et al. 2001). Results of the visible learning, a synthesis of over 800 meta-analyses relating to achievement, ascertain feedback as a key element in the six indicators of excellent education (Hattie 2012). Moreover, providing effective feedback is among dimensions that qualify excellent or expert teachers (Hattie 2012; Killen 2009). In the same line, a study on teaching social competencies in post-conflicts societies displays that "if teachers can help students understand that they are capable of increasing their capabilities, they are very likely to work more intensively. Empowering students by believing in their success is an important aspect of being a teacher" (Krogull, et al. 2014, p. 47).

As for students, feedback is perceived as one of the required skills for students to be self-regulated, and thus to actively engage themselves in their own learning process (Aslam & Khan 2020). Furthermore, "feedback has no effect in a vacuum; to be powerful in its effect, there must be a learning context to which feedback is addressed" (Hattie & Timperley 2007, p. 82). Once a task or an assignment is given to students, feedback should be given on time to allow them understand how they can use given comments for the benefits of their subsequent learning. Even though in some cases, it is important to hold back on feedback so as to give students time to reflect on the task (Hattie & Timperley 2007).

Moreover, feedback is much associated with different important theories in educational quality improvement such as the socioconstructivism theory, motivational theory, students' assessment and grading and promotion of reflection among students just to name a few. Concerning socio-constructivism theory, a good interaction between teachers and students is stressed on for teachers acting as facilitators to engage students actively in the process of learning and at the end produce knowledge by their own (Hùsen & Postlethwaite 1989). Teachers are called to allow students play an active role in their learning process, and as learning facilitators support them when they face difficulties (Krogull et al. 2014, p. 79). Even though, teachers may focus more on the correctional rather than the instructional aspects of feedback (Hattie & Timperley 2007, p. 82), feedback is recognized as one of the important tools to maintain good relationship between teachers and students (Thurlings, Vermeulen, Bastiaens & Stijnen 2013). Feedback is also one of the most important parts of the learning process (see figure below).

Figure 3: Understanding the Mechanism of Learning



Source: Zeinz & Scheunpflug 2010, inspired by Helmke 2010 as cited in Krogull et al. 2014, p. 48.

According to the model above, "learning achievement is the fundamental goal of all school efforts" on which various factors influence either positively (see solid lines) or negatively (see broken lines) (Krogull et al. 2014, p. 48). As it appears in the "learning engine" above (Zeinz & Scheunpflug 2010), feedback can contribute to learning mechanism either in positive or negative way, especially affecting the learner's selfefficacy which in return strongly affects the learning achievement. Individual and criterial based feedback build the learner's self-esteem and thus contribute to learning, whereas social feedback inhibits the learning process. This is supported by the discourse on feedback which stipulates that for feedback to be effective, it should be personalized and related to assessment criteria (see Hatziapostolou & Paraskakis 2010; Hattie & Timperley 2007). With this, students are helped to identify their strengths and weaknesses and related guidance to follow for the feedforward process (Nyiramana 2017, p. 15; Hatziapostolou & Paraskakis 2010, p. 112-113).

In terms of assessment, some scholars reveal that without appropriate feedback assessment becomes unhelpful in learning process (Ornshaw 2007). Research indicates that feedback, amongst other factors, raises students' motivation to learn (Nukpe 2012) and that feedback contributes a lot in students' critical thinking development (Hartman 2010). Positive feedback from teachers helps students learn "without stress but with concentration". Such a teacher is "no longer an agent for selection by blaming students, giving marks and looking for mistakes, but supports pupils socially by giving positive feedback, looking to learning processes and organizing the support between learners". He/she is a role model to his/her students (Krogull et al. 2014, p. 34). Rowntree considers feedback as "the lifeblood of learning". He says that students need feedback to know how they are progressing in their learning, and to get advice that they can use to improve their performance (Rowntree 1999, p. 17). This was as well emphasized by Hounsell who compares "learning without feedback to a blind archery". He believes that it is difficult for students to reach desired performance in the absence of a feedback to tell them how they are doing, and what they should do to improve

(Hounsell 2008, p. 5). Besides, it is said that for someone to improve his or her performance, enough feedback should be given whether he or she asks for it or not (https://intelligentdialogue.com/management/what-isfeedback-2/). Hattie (2009, p. 22) emphasizes this saying that, amongst other factors, visible teaching and learning happens where "there is feedback given and sought". He explains visible teaching and learning as when "teachers become learners of their own teaching, and when students become their own teachers" (Hattie 2009, p. 22). Hattie stresses the importance of feedback in the learning process. Here, he maintains that teachers need to make use of challenging tasks, as once challenged, students feel the need of getting feedback and then seek for it (2009, p. 24). The importance assigned to feedback by various scholars brings the researcher to focus the next section on relevance of feedback in teacher education, and thus describe the state of research in this field.

2.2 Research regarding feedback in teacher education

This section focuses on describing the place of feedback in preparing student teachers for teaching (see chapter 2.2.1), showing the role of feedback in regard to teaching practice (see chapter 2.2.2) and transition from student teacher to teacher (see chapter 2.2.3).

2.2.1 Place of feedback in teacher education

The quality of teaching is largely influenced by the quality of training teachers go through before and after entering their work as teachers (Vavrus, Thomas & Bartlett 2011; Fredriksson 2004). In this view, feedback becomes a necessity as "to be effective, professional development requires thoughtful planning followed by careful implementation with feedback to ensure it responds to educators' learning needs" (Mizell 2010, p. 10). Moreover, building trust matters a lot in teaching about teaching as it is important in building relationship between teachers and student teachers (Loughran 2006) and the role of feedback in facilitating such relationship is unquestionable (UNSW 2014). Hattie, in his synthesis of over 800 meta-analyses relating to achievement, shows that not only do students need a conducive environment to learn from, but also

teachers. He explains this as an environment where "errors are welcomed and fostered" (Hattie 2009, p. 23). Hattie believes that feedback is necessary for human beings to learn from their mistakes. He insists on the necessity of a conducive environment for teachers to learn about how to improve their teaching from others (2009, p. 23).

A survey conducted on the implementation of learner-centered pedagogy in Sub-Saharan Africa emphasizes on the need of constructive feedback for student teachers use after teaching practices in order to improve their pedagogy (Vavrus, Thomas & Bartlett 2011). For effective preparation of student teachers, scholars indicate the necessity of explicit feedback for teacher educators to guide them to a critical analysis and learn from their pedagogical acts (Risko, Vukelich, Roskos & Carpenter 2002; Gardner & Williamson 2007, p. 700). This is because "in the absence of support and feedback one danger is that staff will settle for good enough teaching: getting by rather than getting on, and that in time their approach to their work will be characterised by a restricted professional strategy" (Forrester & Draper 2007, p. 388). In reference to the argumentation above, feedback occupies an essential place in learning to teach. The following section outlines the state of research regarding feedback and teaching practice.

2.2.2 Feedback and teaching practicum

Literature shows that students from countries with high-quality teacher training programmes, especially with effective teaching practice accompanied with regular supervision, are likely to perform well compared to other countries (OECD 2011; Schleicher 2012; UNESCO 2014, p. 240). Similarly, Darling-Hammond argues that "it is impossible to teach people how to teach powerfully by asking them to imagine what they have never seen or to suggest they do the opposite of what they have observed in the classroom" (Darling-Hammond 2006, p. 308). This author stresses that no assignment can replace the "powerful experiential lessons" which are considered as the keystone for learning to teach (Darling-Hammond 2006, p. 308). Singapore, which was a poor country in the last 60 years, is a good example of how the quality of teacher education

can contribute to developing educational quality and various sectors of the country. However, this "transformation was not a one-shot deal" (Tan, Liu & Low 2017, p. 301). Working on quality of teacher education is one of the strategies that helped achieve this milestone. In Scotland also, providing immediate classroom feedback is one of the core elements in teacher education (Al-Weher & Abu-Jaber 2007, p. 253). In Singapore, student teachers go through a systematic formation where they are "mentored by their mentors through a process of systematic observations, modelling, co-teaching, opportunities for practice and frequent feedback, structured reflections and focused professional conversations" (Png & Liu 2017, p. 226). Regular feedback takes a central place in this process to help student teachers make a guided reflection on their teaching practice, what needs to be improved and how. This feedback comes from various persons including the "NIE supervisors, cooperating teachers (CTs), School coordinating mentors (SCMs), and other experienced teachers" (Png & Liu 2017, p. 226-227). In the same line as this example of Singapore, the UNESCO Global Monitoring Report specifies that "opportunities for teaching practice are essential to ensure that teacher trainees succeed later in improving students' learning" (UNESCO 2014, p. 240). "In general, practicum has been seen as a key element in pre-service teacher education curricula and as a place in which the theory and practice divide may be overcome" (Flores 2013, p. 245).

Literature shows that "teacher education should be fundamentally experiential in nature" (Chua & Chye 2017, p. 62). A study on teacher education confirms practicum to be the cornerstone of teacher training programme. They take it as a vital part in learning to teach (Liu, Tan & Wong 2017, p. 194), as it helps to shape student teachers to "the type of beginning teachers that schools wish to employ" (Liu, Tan & Wong 2017, p. 197). Practicum is thus defined as:

"A period when pre-service teachers are attached to schools to learn how to teach and to experience what it means to be a teacher. It enables pre-service teachers to acquire beginning teaching competencies, crystallise their teaching philosophies, and (trans) form their professional identities. It helps prepare them for the realities of teaching by providing them with a clear understanding of the meaning of their profession and the contexts of schooling." (Liu, Tan & Wong 2017, p. 194).

During teaching practice, student teachers are accompanied through either mentorship or supervision. Mentorship is understood as a professional relationship between an experienced person and a less experienced person (Donaldson, Ensher, & Grant-Vallone 2000; Png & Liu 2017). To be effective, it is argued that the mentorship journey should be built on fair relationship between the mentor and the mentee. Here the mentor is perceived as a guide and "a source of moral support" (Awaya et al. 2003, p. 49). For being useful to the pre-service teachers in building their career, this relationship should be given on a continuous basis (Denmark & Podsen 2016; Png & Liu 2017). Even though not explicitly mentioned, feedback appears to be central element for mentor to fulfil his role. He or she is expected to be:

"A model and instructor of students' teaching, an information source for tips and advice, an introducer to the teaching world, an evaluator, a coach or a supporter, a challenger, a co-enquirer who stimulates pre-service teachers' reflections on their own lessons, and a co-learner who grows together with the mentee" (Png & Liu 2017, p. 222)

For Pungur (2007, p. 269), teacher educators should feel obliged to provide feedback to student teachers after observation. On the other side, giving feedback is one of the important knowledge and skills that mentors should have. A study on teacher education in Norway indicates that mentors need to have, amongst others:

- "knowledge about theories of learning, specifically of adult learning, work-based learning, teachers' professional development, and mentoring.
- knowledge about and skills in assessment, assessment for learning, such as feedback and feedforward, and the role feedback plays in motivation and developing self-efficacy.
- practical mentoring skills, how to nurture reflection in others, including communication skills and c-operation skills" (Smith & Ulvik 2013, p. 269).

To be effective, teaching practice should be followed by "reflective conversations because, by nature, an effective teacher is a reflective teacher" (Brandt 2008, p. 42). Given the importance of the role assigned to mentors, the same authors recommend a programme to prepare mentors to

do their job well (Smith & Ulvik 2013, p. 264). This is supported by the fact that the relationship between student teachers and mentors is recognized to play a big role in initial teacher training (O'Brian, Stoner, Appel, & House 2007; Cornelius & Nagro 2014). As far as supervision is concerned, it is mainly done in order to provide feedback to trainees in a pre-service or in-service teacher training programme, check to which extent they have acquired expected skills, and to get feedback on the university teacher training programme. To be effective, it is advised to involve several teacher education providers in the process of supervision by establishing a strong collaboration between the university, cooperating schools, and all the other institutions involved in (pre-service or inservice) teacher training (Jeuthe 2001, p. 178-179). Feedback appears as a central element and useful for effective supervision. One of the roles of the cooperating teachers is for instance to "spend most of the time in the classroom observing the student teacher' performance, ..., and to provide on-the-spot feedback and guidance that is appropriate for each student teacher" (Serdaneh 2001, p. 199-206). An effective supervision should be followed by a conversation between the supervisor and the student teacher for an effective professional development on the side of the student teacher (Jeuthe 2001, p. 178; Pungur 2007, p. 273). Feedback is shown to be an important component for ensuring effective supervision of student teachers during teaching practice (Ellis & Loughland 2017, p. 51; Brandt 2008, p. 38), and thus contributing to the quality of initial teacher training. The next section is focused on describing the role of feedback for novice teachers during their first years of service in schools.

2.2.3 The notion of feedback for the transition from trainee to teacher

After completion of a teacher education programme, novice teachers are generally considered qualified for the teaching job. They are expected to have the necessary knowledge needed to perform as teachers. However, this transition turns into a shock when the novice teachers realize that what awaits them is different form their expectations (Farrell 2016, pp. 30–31). As for the study conducted on teacher education in Norway, authors comparing the transition from student teacher to teacher as "an

important and critical stage in their professional learning, where identities undergo transformation and development" (Smith & Ulvik 2013, p. 262). Other authors put this transition at the heart of student teachers' learning journey (Gerdner & Williamson 2007, p. 698). This transition may come from "two perspectives: real classroom teaching as well as working with colleagues" (Farrell 2016, pp. 30-31). This situation may be attenuated or exacerbated by the preconceptions of students might have about teaching and/or the quality of teacher education. In case reflection on acquired knowledge and prior experiences lack for these novice teachers, they may fail to adapt to their new role as teachers in real classrooms (Farrell 2016, p. 32). In the booklet on "Fundamentals of Teacher Education Development-Ensuring Quality by Attending to Inquiry: Learner-Centred Pedagogy in Sub-Saharan Africa", this is referred to as "technical rationality model" (Vavrus et al. 2011, p. 26). The same authors maintain that "without high-quality initial training, teachers largely teach the way they were taught", and this shows why it is necessary to examine the quality of teacher training programmes (2011, p. 71). Amongst other things, the development of a professional role identity should be worked on during initial teacher education to ensure that teachers are sufficiently prepared to engage in their new role as teachers (Farrell 2016, p. 84-85). Teaching process being compared to an iceberg, guided reflections combined with constructive feedback appear to be an effective tool to help student teachers see and think also on the hidden part of the iceberg after teaching practice (Farell 2016, p. 116-117). This is supported by Smith & Ulvik (2013) who recommend, based on the experience in Norway, to have an effective mentoring programme to accompany newly recruited teachers as this period is considered to be a continuation of learning to teach (p. 266). The authors also see the need of preparing mentors to make sure that they understand their role (Smith & Ulvik 2013, p. 266-267), and that they are able to "provide appropriate and constructive feedback" (Smith & Ulvik 2013, p. 269). With this state of research described above, feedback remains an important element at different stages of student teachers' professional development. In the next section, the researcher outlines the challenges related to its provision.

2.3 Students and teachers' concerns about feedback

Even though feedback is recognized to play a vital role in the learning cycle, students and teachers sometimes express concerns about the process of feedback. Students say that late feedback is not useful, sometimes feedback is too little or too much, the purpose of feedback and related criteria are not clear, the feedback comments are not understandable and/or shocking, feedback is cryptic, sometimes they are told what they should have been told before starting to work on the given task, or there is no opportunity to converse with the teacher about the feedback (Spiller 2014, p. 1). Other scholars argue that when the feedback process is not clear to students, it is difficult to get students involved (Duncan, 2007; Hattie & Timperley 2007). Hatziapostolou and Paraskakis (2010) underline that students may lose interest in formative feedback due to low motivation caused by bad performance and unsuitable communication methods. Even so, literature show that without effective feedback, it is difficult for students to know where they have problems and how to correct them (Hounsell 2008; Hesketh & Laidlaw 2002). This is because communication, depending on how it is done, "can contribute to increased self-efficacy and self-concept, or weaken adolescents' trust in their own self-efficacy" (Krogull et al. 2014, p. 34). This is also the case of feedback given in the form of grades or marks, not appreciated by students. Such feedback "often rests unclear to them [students] what a good grade is substantially composed of. For example, students with a low self-esteem often see good grades as fluke. Students with a high self-esteem see a bad grade as a slip" (Krogull et al. 2014, p. 75). To avoid confusing students in their learning process, feedback should be well communicated to make sure it is understandable and beneficial to all students including those with negative expectations (Krogull et al. 2014, p. 75; Hatziapostolou & Paraskakis 2010). For being more effective, Hattie and Timperley add that "feedback needs to be clear, purposeful, meaningful, and compatible with students' prior knowledge and to

provide logical connections" (2007, p. 104). Literature also shows that "feedback which students construe as negative or destructive to their sense of self does more harm than good" (Dowden, Pittaway, Yost & McCarthy 2013, p.4).

On the side of teachers, their concerns are that students are more often interested in seeing only their grades and neglect the importance of a descriptive feedback (Spiller 2014, p. 1; Ruiz-Primo 2011; Weaver 2006; Carless 2006, p. 3). Literature shows that grades are sometimes used by teachers for recognizing high performing students or blaming low performing students (Carless 2006, p. 5). "Large class sizes and lack of time make it difficult for tutor to provide detailed feedback". With this, feedback other than grade is rarely given after examinations (Carless 2006, p. 11). Teachers say that preparing feedback requires much time, and that they sometimes do not know how to prepare and give effective feedback (Spiller 2014, p. 1). On the contrary, Weaver (2006, p. 9-10) considers the above arguments as "weak defence" because there exist enough resources on feedback. The same author adds that there will always be people who deny the role of feedback. Research shows that oral feedback helps students a lot in addition to written feedback, and that its effectiveness depends on the kind of relationship established between the teacher and students during the process of feedback (Ruiz-Primo 2011). Here, literature argues that improving pedagogical relationship remains central for achieving education quality at all levels of education (Krogull et al. 2014; Hattie 2009).

Literature shows that teachers more often use a difficult language not understandable by students, which, as result, does not allow dialogue between the teacher and the students (Spiller 2014, p.4). The language of feedback is very important for effective feedback. When the feedback comments are not clear or are only focused on telling students that they committed mistakes, students do not know or understand how to use it for improving. A complimentary or critical language makes students respectively pay no attention of their weaknesses or feel frustrated³

³ https://federation.edu.au/staff/learning-and-teaching/teachingpractice/feedback/language-of-feedback visited on 25 January 2021

(their efforts have not been acknowledged). To mitigate these challenges, research shows that "feedback should be undertaken within an atmosphere of trust and concern where both trainee and teacher know and feel that they are working as allies with common goals ... if that relationship is not there the feedback is less likely to be effective" (Hesketh & Laidlaw 2002, p. 246). This correlates with the empirical study at hand that intends to investigate the experiences of student teachers regarding feedback.

2.4 Teacher education in a changing and challenging world

To educate teachers needs a reflection for what a society students need to be educated and by this their teachers. The world today is a quickly changing and more and more globalized world. Individuals need to learn to cope with a quick social change, a more individualized society, complexity of problems, climate change and social coherence in society. This needs to have consequences for the training of teachers. Educational discourse argues that it is important to prepare student teachers to be able to cope with "the problem of complexity that is made more intense by the constantly changing nature of teaching and learning in groups" (Darling-Hammond 2006, p. 304). As per current educational discourse, a good teacher, especially of the 21st century, is expected to have not only content and pedagogical knowledge but also "the mastery of understanding their learners and facilitating their learning" (Tan, Liu & Low 2017, p. 5). In this perspective, teacher education in the globalized world considers the development of leadership and problem-solving competences (Tan, Liu, & Low 2017, p. 2), including the insertion of constructive feedback (Hattie 2009, p. 127). In the 21st century, institutions are called to make teacher education inspiring and future-oriented (Tan, Liu, & Low 2017, p. 3) and serving global values. According to Maastricht declaration on Global Education in Europe (2002), this means an "education that opens people's eye and minds to the realities of the world and awakens them to bring about a world of greater justice, equity and human rights for all".

In this regard, the aim of teacher education programmes should be to prepare effective teachers who are committed to their work and able to impart desired competences to their students (Tan, Liu, & Low 2017, p. 4). As mentioned above (see chapter 2.2.3), this can be supported by allowing moments of guided reflections accompanied with constructive feedback (Farell 2016, p. 116–117), for student teachers to be well prepared with professional competences needed in today's challenging and changing world.

2.5 Specification of the research questions

In this section, I summarize the findings of the previous chapters. The gaps are described showing the need to research on feedback in initial teacher training in Rwanda.

This study focuses on the quality of teacher education, especially exploring the perceptions of student teachers regarding feedback during their study time. According to the previous sections of this chapter, education quality is essential for ensuring that learners are equipped with needed competences in today society, and especially for coping with the challenging and evolving world. The role of teachers appears primordial for learners to learn to be critical and responsible citizens, especially in the era of globalization. Here, scholars put emphasis on the need of quality teacher education. This is supported by the discourse on teacher education, which shows the growing need of training highly qualified teachers because of their role in improving the quality of education (Smith & Ulvik 2013, p. 273). Effective teacher training is mainly needed in developing countries, and especially in post-conflict contexts to bridge unsuitable training that teachers have received (Krogull et al. 2014, p. 80). Teacher educators are shown to be at the heart of teacher training through role modelling, especially during initial teacher training. Teacher educators are assigned a double role, that is, the role of teaching how to teach and the role of showing it. According to existing discourse on teacher education, feedback would play an important role for teachers to engage exchanges and reflections for students to learn from their pedagogical practice. A study conducted in Rwanda on this important aspect focused on investigating teacher educators' beliefs about role modelling in teacher training. This study revealed that teacher educators' understanding and practice is limited on implicit role modelling (Niyibizi 2021, p. 100). This shows that there is need of research that would help to understand how student teachers are prepared, and more especially from their perspectives.

With regard to feedback, a huge literature exists. There is awareness about the importance of feedback in the teaching and learning process, types of feedback, and related challenges (see Hattie 2012; Hatziapostolou & Paraskakis 2010; Hattie 2009; Biggs & Tang 2007). Feedback is seen as an essential component of learning. Scholars argue that a conducive learning is a pre-condition for an effective teacher training. This necessitates building trust between teacher educators and student teachers. Trust depends on what kind of feedback is given and how it is given. Most of these findings come from studies conducted in the Global North. Even though a few studies in the area education are conducted in Rwanda (see Rwanamiza 2011 & Mugisha 2010), they mostly addressed the assessment in a specific HLI and discipline without an explicit focus on teacher education and feedback. The discourse on teacher education highlights the teaching practice as the cornerstone in learning to teach where feedback is essential to ensure that student teachers benefit and get the opportunity to clarify misconceptions, they might have about teaching profession. Knowledge about the experiences of student teachers with regard to feedback during their training process and how feedback would be used to enhance the quality of teacher education is still lacking. A study by Weaver (2006) shows that research on students' perceptions on feedback is an academic area that needs to be explored (see also Dowden, Pittaway, Yost & McCarthy 2013). Hattie and Timperley (2007, p. 104) in their article of the power of feedback, show for instance, that "feedback needs to be more fully researched by qualitatively and quantitatively investigating how feedback works in the classroom and learning process". In a similar perspective, a recent detailed review-study about constructive feedback shows that there is huge literature, but "very limited theory-based empirical research available" (Aslam & Khan 2020).

From the analysis of the state of research as shown above, questions about the perceptions of student teachers regarding feedback are less addressed and not visible in the Global South. The current state of research has also not adequately deepened on the place of feedback in teacher education. This study therefore comes as a contribution to reducing this gap about the understanding of how to achieve quality of teacher education by focusing on the aspect of feedback from the perspectives of student teachers and how to reflect what this means for their professional development, especially during initial training. The researcher looks on the learning situation, which kinds of feedback are given based on student teachers' descriptions and how they conceptualized it. To answer these research questions, qualitative approach through semi-structured interviews with student teachers was chosen with data analysed by content analysis (see chapter 3).

3 Research methods

In this chapter, the methodology used to ensure the achievement of my objectives behind conducting my study on "Quality of teacher education: Experiences of student teachers vis-à-vis teachers' feedback" is highlighted. This methodology includes the research approach (chapter 3.1), the data collection method (chapter 3.2), the sampling technique (chapter 3.3), the data analysis method (chapter 3.4.) and ethical considerations (chapter 3.5).

3.1 Research approach: Qualitative approach

The purpose of this research is to investigate the experiences student teachers vis-à-vis their learning situation more especially concerning the feedback they receive in both leaning and teaching related activities (while doing internship). In this respect, it is shown from research that teaching and learning process should be characterized by a social interaction between a teacher and the students (Hartman 2010). Feedback helps to maintain good relationship between teachers and students (see chapter 2) (Thurlings, Vermeulen, Bastiaens & Stijnen 2013).

Research shows the necessity of interaction and conversation when searching on experiences (Bülow 2004, p. 6-7; East, Jackson, O'Brien & Peters 2010, p. 23; Forlizzi & Ford 2000, p. 422-423; Trees & Kellas 2009, p. 1). When interaction and conversation are involved not every research method can be suitable. Those research methods allowing person-to-person communication (interviews for instance) are recommended. Interviews are considered as "central method for data collection" in qualitative research. "An interview in qualitative research is a conversation between two individuals in which the interviewer asks questions and the interviewee respond" (Savin-Baden & Major 2013, p. 358). What is more, qualitative approach is recognized important while searching on human action and experiences (Savin-Baden & Major 2013; Forlizzi & Ford 2000, p. 423). In addition to the above explanations, qualitative approach is chosen because there is not a lot of knowledge on the processes of achieving quality and the role of feedback concerning teacher education. This research is aiming at highlighting experiences in distinguished cases, as here the situation in Rwanda (Marshall 1996). As described in the following sections, semi-structured interviews are chosen for collecting data from a sample of student teachers selected using theoretical sampling approach. Deductive-inductive content analysis is used for analysing the data from interviews.

3.2 Data collection method: Semi-structured interviews

In qualitative research, there exist a number of methods that may be used in data collection. These methods include fieldwork, interviews, focus group interviews, observations, document review, and use of audio-visual materials (McMillan & Schumacher, 2014; Savin-Baden & Major, 2013, Orb, Eisenhauer & Wynaden 2001). In this research, interviews especially semi-structured interviews were used to be able to gather individual student teachers' experiences with regard to feedback. By using semi-structured interviews, I was able to modify the set order of pre-determined questions to be asked to participants during interviews or to ask additional questions depending on participants' answers on previous asked questions (Savin-Baden & Major 2013, p 359; DiCicco-

Bloom & Crabtree 2006). To get participants speak openly I have developed an interview guide following the model of Savin-Baden and Major (2013, p 364-370). The interview guide used in this research is in total made of 8 main questions and 13 sub-questions (probing). It starts with an initial stimulation: "I am interested to learn about teacher education in Rwanda, tell me about your learning to become a teacher!" supplemented with more stimulations to gather in-depth data / for follow up and ends with a concluding stimulation: "Is there anything else that could help me understand your learning experience as a student teacher, especially in regard to feedback? Tell me!" (see appendix 1 for more details on the interview guide). The initial stimulation is related to the main research question and then more specific stimulations followed to explore profoundly all aspects of my research purpose (DiCicco-Bloom & Crabtree 2006). Examples of questions that were used in my interviews are: (1) What do your teachers do so that you learn effectively? Is there an example that can help me understand this well? Tell me!; (2) What do you appreciate and what don't you appreciate in your learning process? Tell me!; (3) Can you tell me about assessment in your learning process?; (4) What about feedback in your learning process to become a teacher? Please tell me!, (5) How do you feel while and after getting feedback from your teachers? Can you use examples to help me understand this better!, (6) How do you wish teaching and learning process to become a good teacher look like?

At the end of the interviews, all interviewees were asked background questions which have been important for subsequent selections of respondents and later useful during the analysis of collected data. This background information includes for instance HLI enrolled in, level of study, kind of participation (full-time or part-time student), length of internship period and teaching experiences. The interview guide was shared with my PhD learning community and my supervisor in beforehand. For each interview, an interview protocol was done, consisting of three parts, the header, the script, and the closing part. The header includes information about the time, date, place, and interviewee code number, which were filled out either at the beginning or end of each

interview conducted. The script consists of information to be given to interviewees while fixing the interviews' appointments like the research purpose, ethical issues (for more details on this see chapter 3.5) and conduct of the interview. The closing part contains a concluding sentence to thank participants and contact addresses for further information if necessary (Savin-Baden & Major 2013). Interviewees were contacted through face-to-face contact, by phone calls or by email to make convenient appointments for interviews (time and place).

Among different interview media (face-to-face, telephone, instant messaging, email, computer conferencing/ chat interviews and virtual world) that exist, my choice went to face-to-face interviews. This choice is related to fact that it was easy for me to get access to the interviewees (Savin-Baden & Major 2013) and that talking about experiences requires trust between interlocutors. For this trust to be established during my interviews, I made use of exhorting and moderated gestures and smiles. The interviews lasted between 32 minutes 54 seconds and 01 hour 21 minutes 47 seconds. The figure below illustrates the duration for all the 32 conducted interviews.

Figure 4: Duration of the interviews

Source: From own data

Sharing the same mother tongue with interviewees, Interviews were conducted in Kinyarwanda (mother tongue of all Rwandans and one of the official languages in Rwanda) to let participants feel free to express their views (Mack et al 2005). All interviews were recorded, along with notes taking. Taken notes assisted to monitor good follow of questions to be asked during interviews. More especially, notes taking supported me to decide on which question to ask in response to participants' answers, to give questions either in terms of verification questions, prompts and probes, follow up questions and / closure questions in order to get participants fully engaged and encouraged to share their respective experiences (Savin-Baden & Major 2013).

To ensure comfortable proceeds of interviews, high quality recordings and avoidance of problems later during data analysis, different strategies were applied (Cohen, Manion & Morrison 2011; DiCicco-Bloom & Crabtree 2006). These strategies included prevention of background noise, minimizing distractions by choosing appropriate meeting

places with interviewees, and placing the recorder in an appropriate place. With regard to recording of interviews, I always made sure that I had extra batteries. In addition, care was given to the quality of the interview. This included avoidance of humiliations or difficult questions, jumping from one topic to another, giving advice or opinions, summarizing too early or closing off an interview too soon, and being too superficial by taking notes and referring from time to time on the interview guide, minimizing the risk of stage fright between interviewees and interviewers. It was important to take care for friendly and controlled gestures and smiles.

The interviews were first transcribed in Kinyarwanda and then translated in English. The transcription was done word verbatim, that is, with respect to the audio files (Mayring 2014, p. 45). To ensure quality, both the transcription of Kinyarwanda audio files and their corresponding translations in English were checked. The transcriptions were verified in relation to the original audio files. English translations were checked by a different person using the related Kinyarwanda transcripts. As this was the basis of data analysis, the similarities and differences were controlled and were then used to improve the English translation (for more details on transcription see 3.4.1 below).

3.3 Sampling technique: Theoretical sampling

There exist a number of sampling strategies that may be used in qualitative research for instance convenience sampling, judgement sampling (also known as purposeful sampling) and theoretical sampling (McMillan & Schumacher 2014; Savin-Baden & Major 2013; O'Leary 2010; Marshall 1996). In this study, theoretical sampling was used, "the processes of data collection whereby the researcher simultaneously collects, codes and analyses the data in order to decide what data to collect next" (Coyne 1997, p. 625). With this method, a researcher does not know at beginning the size even the constituents to be used successively during data collection procedure. This means that the sample is constructed throughout data collection process until the achievement of theoretical saturation and data collection goes along with data analysis (Evans 2013;

Draucker, Martsolf, Ross & Rusk 2007, p. 1138). In other words, "theoretical sampling necessitates building interpretative theories from the emerging data and selecting a new sample to examine and elaborate on this theory" (Marshall 1996, p. 523).

At the beginning of data collection, selective sampling (identification of respondents before data collection) was used, and the research had to decide when to move from selective to theoretical sampling (Draucker, Martsolf, Ross & Rusk 2007, p. 1137–1138; Coyne 1997, p. 627). This means that individuals for the next interviews were chosen depending on the needs identified from the previous interviews until when no new or different information is provided (theoretical saturation) (Savin-Baden & Major 2013). Theoretical saturation means that "additional analysis no longer contributes anything new about a concept" (Draucker et al. 2007, p. 1137). Thus, this method helps to keep the interrelationship between data collection and data analysis processes. The choice of theoretical sampling is not only justified by its advantages above-mentioned but also the fact that with my research, the objective was to get all qualities by interviewing student teachers characterized by different background (see the sampling table on appendices 2–3).

After opting to the use theoretical sampling, I had then to decide on data sources from which I could obtain richest and relevant information (Draucker et al. 2007, p. 1142). In this regard, a sample of students (known as student teachers in this study) enrolled in faculties of education in different Rwandan HLIs were chosen. Participants to interview were chosen from thirteen Rwandan HLIs offering educational programs (see appendix number 2). My intention was not to use a big sample size but a suitable one helping me to answer my research questions effectively as the central goal of my research was to highlight experiences of Rwandan student teachers during their preparation to become secondary teachers at university level (Marshall 1996). The aspects which guided the choice of interviewees include for example former experiences of student teachers with school, the level of study, program pursued (day, distance, weekend, holiday, online ...), teaching level (primary level or secondary level), teaching experience in primary or secondary schools,

gender, HLI enrolled in, and study subject in HLI. As it is mentioned above that theoretical sampling started with selective sampling, the first sample was done purposefully (Coyne 1997, p. 625) considering a combination of four similar characteristics to all interviewees. They were all students in a Kivu HLI (Kivu is anonymous name given to this HLI: see 3.5 for more explanations on anonymization). These student teachers were all at the last year of their studies in social sciences at Kivu HLI where they attended classes during the weekends. Data from these three interviews were analysed. Codes and categories that emerged from the analysis of these initial data were used to select the next respondents through theoretical sampling (Coyne 1997, p. 624–625).

As far as age is concerned, interviewed student teachers are between 20 and 50 years old. This situation is caused by the fact that HLIs offer different modes of attendance that allow teachers to do university studies either during the weekends or school holidays. As illustrated by the figure below, many interviewees are in the range of 25–30 years old with an equal number of women and men (five women and five men). The range with few interviewees is between 45 and 50 years, where only one student teacher was interviewed.

Age of interviewees per gender 35 30 25 20 15 10 5 20-25 25-30 30-35 35-40 40-45 45-50 Total ■ Female ■ Male ■ Total

Figure 5: Age of interviewees per gender

Source: From own data

Looking on the location of HLIs, most of interviewed student teachers were studying in HLIs located in urban areas. The gender aspect in this regard was considered while choosing student teachers to be interviewed. As per the figure below, women and male student teachers are almost equally distributed according to location of their respective HLIs.

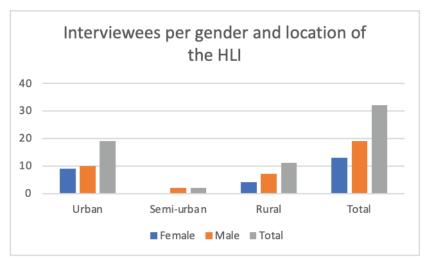


Figure 6: Interviewees per gender and location of HLIS

Source: From own data

3.4 Data analysis method: Qualitative content analysis

There exist a number of data analysis methods that a qualitative researcher may choose (McMillan & Schumacher 2014; Savin-Baden & Major 2013). These methods include but not limited to key word analysis, content analysis, domain analysis, thematic analysis, constant analysis, constant comparison, analytical induction, heuristic or phenomenological analysis, hermeneutical analysis, ethnographic analysis, narrative analysis, semiotic analysis, discourse analysis and event analysis (Savin-Baden & Major 2013). The eminent challenge is to select a suitable data analysis method for a particular research. A data analysis method is chosen depending on the aim of the research and also according to data type and data collection strategy used (Savin-Baden & Major 2013). Given that my research was interested on experiences of student teachers regarding feedback, which were collected using individual interviews, I decided to use content analysis and more especially qualitative content analysis.

Content analysis is defined as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff 2004, p.18). It has its root in communication science where it was elaborated to analyse in a quantitative way enormous text (Mayring 2014, p. 17). It was in the second half of 20th century, that modern content analysis used in social sciences was developed. The former one used in communication science is known as quantitative content analysis and the later developed is qualitative content analysis (Schreier 2012, p. 18). In my research, I used qualitative content analysis (QCA). QCA is "a method for systematically describing the meaning of qualitative material" (Schreier 2012, p. 8).

My choice towards QCA was led mainly by the aim of my research (see chapter 3.1 above) and the fact that my data was collected through semi-structured interviews which were then transcribed verbatim in text form (see chapter 3.2 and 3.41). QCA helps to face one of the persisting problems of qualitative data consisting of summarizing amounts of data collected into manageable and understandable patterns (Schreier 2012, p. 80; Cohen, Manion & Morrison 2011) and to examine a text at its fundamental level (the content) (Savin-Baden & Major 2013, p. 438). It is as well recommended when a researcher has to work with a great quantity of data, which requires reduction (Schreier 2012, p. 80). This was the case for my study, as I had to deal with transcripts of interviews where I had 32 transcripts ranging from nine to 21 pages, and in total 442 pages.

QCA may be used either in an inductive or deductive way where the approach to use is selected with respect to the purpose of the study. Inductive approach is used when theory generation is the purpose and deductive approach is used in case of theory testing. The preparation phases are done in the same way for both of them (Elo & Kyngäs 2008). There is also a possibility to mix both inductive and deductive approaches called mixed procedures and "depending on research questions, these mixed procedures offer interesting possibilities to text analysis" (Mayring 2014, p. 104). In this research, I decided to use a mixed approach: deductive-inductive approach (see 3.4.2 for more explanation). To achieve this, I passed through different steps namely data preparation

(organization and transcription of the audio files) (chapter 3.4.1), categorization (chapter 3.4.2), data analyses by coding (chapter 3.4.3), and then generalization by abduction into typologies (chapter 3.4.4) (McMillan & Schumacher 2014; Timmermans & Tavory 2014; Savin-Baden & Major 2013; Reichertz 2009;). The quality of the findings was systematically controlled (chapter 3.4.5).

3.4.1 Transcription system

As mentioned above, the first step to analyse my data dealt with organization and transcription of the audio files. A transcription is defined as "a set of exact rules how spoken languages is transformed into written text" (p. 45), reason why to be well done, a researcher needs to decide on transcription rules to be followed (Mayring 2014). Among different existing transcription systems (selective protocol, comprehensive protocol, clean or smooth verbatim transcript, pure verbatim protocol, international, phonetic alphabet, protocol with special characters and protocol with comment column), I decided to use pure verbatim protocol. I chose verbatim protocol because regardless the fact it may be time consuming its importance over the other system is that the preservability of information is very high. The tape-recorded material was recorded literally taking into consideration every utterance (Mayring 2014). Interviews were first transcribed verbatim in Kinyarwanda (the language in which they were done: see chapter 3.2 above) and then translated in English. Here below I give an example of one quotation for an interview in Kinyarwanda and a corresponding translation in English.

Kinyarwanda version:

"... hari abarimu rero uza yabona rwose ahantu ukoze ikosa akagufasha atabanje kukwereka ko ukoze ikintu kitabaho (huuum) ahubwo akakwereka uburyo ki akagufasha kugira ngo wumve uburyo wakagombye gukoresha ukumva ko niba ugize ahantu wibeshyaho gatoya akakugarura mu nzira mu buryo bwiza bituma nawe wumva ko uwo muntu ari umuntu ugomba ko rwose ukumva wa wundi uri kumwe nawe koko aragufasha aho wari ugiye kuva mu murongo akakugarura kandi akwitondesheje (huuum) bityo rero hakaba nundi uta inzira aho kukugarura neza ukabona ashatse nko ku navuga kuburutariza (huuum) ibyo rero

bigatuma ashobora ku mu banyeshuri ashobora gukenera n'ikintu kitari cyiza gishobora no gutuma igihe bagiye kugira ibyo bavuga mu matsinda abantu babivuga batari fiyeri kuko baba bumva ko n'ubundi ari buze kubasebya imbere yabagenzi babo (huuum) icyo gihe ntibamwibonemo kandi bigatuma noneho impano zabo zita atabafasha gutuma zidevelopa (huuum) kubera ko abaremamo ikintu navuga (huuum) nta ambience abaremamo atuma habaho muri we ikintu navuga cya timidite (huuum) kubera ko baba batinya gukora ikosa imbere ye ..." (Nyamagabe 291–306).

English translation:

"... there are teachers that help you when you are mistaken without showing you that you did a stupid thing (hmm) but rather shows you how to correct your mistakes and makes you understand which gets you back on the right track in a good way which makes you realise that the person is indeed helpful and one that corrects you but in a good way (hmm) and yet there are some who instead of correcting you they I can say brutalize you (hmm) that then causes something bad in students whereby even if they have opinions to give in a group discussion they are not confident out of the fear of being put to shame by the teacher in front of other students (hmm) that time students are not comfortable with their teacher and the teacher is not helping to develop students (hmm) because he/she creates something in them I can say (hmm) he/she does not create the ambiance but rather creates timidity in them (hmm) because they are afraid to make mistakes in front of him/her ..." (Nyamagabe: 251–263).

During the translation, an observation about the third singular personal pronouns was made. Sometimes in Kinyarwanda, the subject is combined with the verb in one word. The example from the quotation above is for instance "... abaremamo ...". Following how this was spoken, it would be translated as follow "... the teacher creates in students ...". From this example, there is no personal pronoun that distinguished females from males. This explains the reason why in the interview segment above and in similar cases, the researcher opted to use he/she.

For effective translation, I myself transcribed and translated the first three interviews. With the next interviews, I hired two persons to help but before starting, I trained them using the first three interviews I worked on myself. These persons were additionally given instructions to make sure that they transcribe in accordance with the chosen transcription system (pure verbatim protocol). The transcriptions were double

checked: first before translation from Kinyarwanda to English and second after translation.

For ethical reasons, and confidentiality, interviewees and associated HLIs are given anonymous names. Student teachers are given the names of districts of Rwanda, while the HLIs are given the names of lakes located in Rwanda. The anonymous names used for interviewed student teachers are for instance Kicukiro, Gakenke, and Ngoma who are studying respectively in HLIs given the following anonymous names: Kivu, Ruhondo, and Cyohoha.

3.4.2 Categorization system

The category system is in the middle of the analysis of my data because of its centrality in content analysis (Mayring 2014, p. 37) and essentialness in assessing the quality of my findings. With this, more attention was paid to the formation of categories and their verification (Mayring 2014). For inter-subjectivity consideration, the data segmentation was made explicit where three units: the coding unit, the context unit and the recording unit were defined. Coding units are smallest components of material, which can be interpreted meaningfully according to developed categories and corresponding to one sub-category of the coding frame. Context unit is the largest text component needed to comprehend the significance of a specified unit of coding. Recording units sometimes called also units of analysis are mostly bigger that units of coding. They ascertain which parts of the text corresponding to one system of categories (Mayring 2014, p. 51; Schreier 2012, p. 131-133). In the case of my research, the coding unit is every complete statement by a student teacher on his / her experiences with regard to his / her learning process, feedback from his / her teachers and their effects on the quality of teaching and learning process. The context unit encompasses the full answers of interviewees, the interview protocol I used as well as taken notes during the interview. The recording unit refers to all the transcripts of interviews I conducted.

In interpreting the base material three fundamental forms (summary, explication and structuring) may be used: (1) summary, here the

base material is reduced to remain with the necessary contents; (2) explication, supplementary material is provided on the questionable text to enhance the understanding, explanation and interpretation of the specific text segment; (3) structuring: specific aspects of the material are filtered out "to give a cross-section through the material according to predetermined ordering criteria or to assess the material according to certain criteria" (Mayring 2014, p. 64). The above three forms are extended to nine distinct forms of analysis which are: "summarizing and inductive category formation (reduction), narrow contextual analysis and broad contextual analysis (explication), nominal deductive category assignment and ordinal deductive category assignment (structuring), and content structuring / theme analysis, type analysis and parallel forms (mixed approach)" (Mayring 2014, p. 65).

Looking at my research questions (see chapter 1 and chapter 2.5) and the fact that there exist already theories on quality education, teacher education and feedback; deductive categories were first elaborated and then supplemented by inductive categories. First categories were deductively elaborated referring to existing theory and literature and then supplemented by inductive categories identified progressively during the coding process of interviews' transcripts (Mayring 2014, p. 37). In the table below, I give the names of categories with examples of references, especially for the case of deductive categories.

Table 1: List of deductive and inductive categories

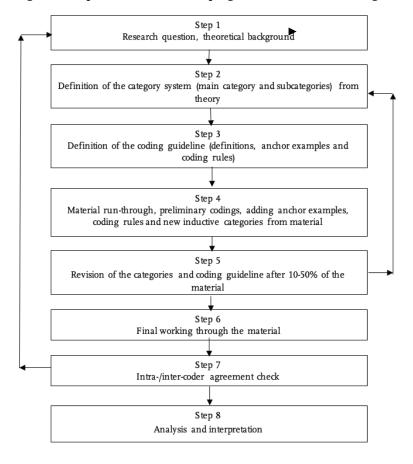
Categories	References (Examples)
Theoretical learning situation	Sanyal 2013; Korthagen 2008;
	Lunenberg 2007; Leu 2005; Fre-
	driksson 2004; Darling-Hammond
	et al. 2000
Practical learning situation	Flores 2013; Brandt 2008; Darling-
	Hammond 2008 & 2006
Understanding of feedback	Nyiramana 2017; Hamid &
	Mahmood 2010; Hattie &
	Timperley 2007
Kinds of feedback	Hatziapostolou & Paraskakis 2010;
	Hounsell 2008
Importance of feedback on the	Ellis & Loughland 2017; Krogull, et
quality of teaching and learning	al. 2014; Hattie 2012
Challenges related to teacher edu-	Farrell 2016; Smith & Ulvik 2013;
cation	Vavrus et al. 2011
Suggestions for effective teacher	Ellis & Loughland 2017; UNESCO
education	2014; Vavrus et al. 2011
Pre-requisites for a successful	
teacher training (This was an in-	
ductive category)	

Source: From own data

In addition to categories indicated in the table above, sub-categories were also developed. These sub-categories were first deductive and completed with inductive sub-categories that emerged from the analysis of data. With this deductive—inductive approach, the categorisation system, was developed. This approach helped me to avoid disadvantages of summarizing content analysis such as time consuming and consideration of irrelevant materials with regard to the research questions. Using this approach, I followed eight steps, which resulted from combining steps of deductive category assignment and inductive category assign-

ment.. Referring to Mayring, all the defined seven steps of deductive category assignment have been adopted. Under step 4, an aspect of formulating new inductive categories has been added. For quality assurance of my findings, a related step (see step 7) was judged indispensable to be added (2014, p. 80 & 96). These steps are illustrated in the figure below:

Figure 7: Steps followed for developing deductive-inductive categories



Source: Adapted from Mayring (2014, p. 80 & 96)

The arrows at step 5 on the figure above mean that, after working through the transcript for the first time, the category system as well as coding system has been revised for exhaustiveness of deductive categories and clearness of these processes to the inter- coder and interpretation group. For this, I went back to step 2. In the same line, I had to go back to step 1 too after quality control (step 7) through intra-/ inter-coder agreement (see 3.4.3 for more explanation on how this was done). With regard to this research, I came up with eight main categories referring to the research questions which are subdivided into different subcategories formulated either deductively or inductively (see table 1 above).

3.4.3 Data analysis

While analysing my data, I knew that not all material had to be taken into consideration rather material related to my research questions (Mayring 2014, p. 79). In this regard, I made use of two strategies which are the use of coding frame and working together with members of my interpretation group (Schreier 2012, p. 82). Three phases were adopted not only to ease the coding system but also the intra/inter-coder agreement later (see 3.4.5 below). In this regard, first categories were defined; second prototype examples were given to clarify the features of each category and thirdly, coding rules were elaborated to avoid ambiguity for some categories (Mayring 2014, p. 95).

Coming to the analysis of data as such, a researcher may do it traditionally (by hand) or technologically (by means of computer package / software) (Savin-Baden & Major 2013 p. 431). Considering the advantages of both ways, I decided to do the first coding manually and then continued using a software programme called MAXQDA. The manual work on my data at beginning helped me develop further my first coding system and to improve my interview guide as I was able to realize uncovered areas. I preferred to continue with MAXQDA not only to be able to code my data within a manageable time but also to be able to realize emerging patterns through visual tools displayed in favour of this software (MAXmap, code matrix, code relations, document comparison

chat, document portrait and codeline). Through the coding of interviews and the use of these visual tools, I was able to explore deeply, get familiar and reach the saturation of my data (Zelensky 2019, para. 6; Timmermans & Tavory 2014, p. 176). Concerning interpretation and knowing its difficultness, I referred to advice given by Savin-Baden and Major (2013) for its effectiveness. This includes "acknowledgement of subjectivity, demonstration of the tentative nature of interpretation, openness to negotiation and renegotiation of meaning and recognition of the role of shared "truth" (Savin-Baden & Major 2013, p. 463). As the use of deductive – inductive approach was not enough to complete the analysis of my data, I moved to next phase of abduction (Zelensky 2019, para. 7–8). The next section focuses on describing the concept of abduction as well as how it was used in this research.

3.4.4 Abduction process

According to literature the concept abduction was initially introduced by the ancient philosopher Aristotle. It was later clarified by the American philosopher Charles Sanders Peirce who gave it more visibility as "an explicit theory of inference" (Reichertz 2009, para. 5; Svennevig 2001, p. 1). He added abduction to the already long time discussed modes of inference namely deduction and induction (Richardson & Kramer 2006, p. 499; Svennevig 2001, p. 1). It is noted that deduction is about "inferring a result, given a general rule and a given case". For induction, it consists "in the inference of a rule, given a specific case (a precondition) and a result (an observation)" (Svennevig 2001, p. 2). Abduction means to "infer a result from a rule and a case", by having given the cases and constructing result and rule on the same time. For Pierce, abduction is qualitatively different from the two previous modes (Reichertz 2009, para. 5; Svennevig 2001, p. 1). In the Peircean logical system, abduction is seen as "a logic of exploratory data analysis" (Yu 1994, p. 10). The role of abduction is to generate new ideas or hypotheses using logical and methodological controlled processes (Reichertz 2009, para. 7; Yu 1994. P. 10). Pierce developed it as "a process of gaining new knowledge" (Svennevig

2001, p. 2), understanding knowledge as a "social construct" (Yu, 1994, p. 3), and as "a result of inter-subjectivity" (Yu 1994, p. 7).

In this research, the aim of abduction was to identify the qualities emerging from my data through comparison of cases and generalize them into the typology of feedback based on the experiences of student teachers in Rwanda. After getting familiar with data through the coding process (see chapter 3.4.3), I gathered all the research materials that were produced so far and decided to proceed with the process of defamiliarization (Zelensky 2019, para. 9, Timmermans & Tavory 2014, p. 176-177). According to Zelensky (2019, para. 9), defamiliarization means "creating productive distance between the researcher and the data". Research materials that were used during the adduction process include the interview audio files, and transcripts, code system, memos, and portraits of interviewees. The interviews were coded with MAXQDA. In collaboration with members of my interpretation group, the coded material was reflected by abductive reasoning reconstructing the coding frame. New categories and sub-categories were developed and used to revisit the data until all the qualities from the field were identified. In this study, the new categories are referred to as criteria (see chapter 4.2). By analysing the similarities, differences, and connections among these qualities, three types of feedback were developed (Zelensky 2019, Koskela, Paavola, & Kroll 2018; Timmermans & Tavory 2014), and summarized under an abduction table (see chapters 4.2, 4.3 and 4.4 for further information about these types). According to the empirical data of this study, student teachers' experiences are distributed across the three types, which are referred to as ideal types following the theory of Max Weber (Grønning 2017). In the next section, strategies used for ensuring the quality control of findings are described.

3.4.5 Quality control of the findings

As mentioned in the previous parts of this chapter, the quality of my findings was ensured not only at the level of findings but since the beginning with the elaboration of data collection tool, sampling, data collection as such, transcription and translation of transcripts from Kinyarwanda (mother tongue) to English.

The quality of findings per se would classically be controlled via objectivity (reduction of subjectivity), reliability (repeatability of results) and validity (measurement of the accurate elements) (Mayring 2014). Due to censures assigned to these criteria with regard to their suitability to content analytical research, the intra-coder agreement and inter-coder agreement were used in this research to check the quality of its findings (Mayring 2014). At the beginning of data analysis, I did a trial coding with three first done interviews to not only familiarise with the developed deductive categories but also check its completeness. This trial coding helped as well other coders who intervened during inter-coding to familiarise with my coding system (Schreier 2012, p. 146-147). Working together with my inter-coders during the pilot phase gave us an opportunity to discuss on encountered difficulties and mitigation measures (Schreier 2012, p. 157). After the pilot phase, I then had to deal with the main coding process which needed also quality controls. During this main coding phase, I on one hand checked my coding process with part of my base material (ignoring previous codings). Here I followed the advice given by Schreier of taking a period of 10-14 days between the two codings (Schreier 2012, p. 157). New results were compared to former ones (comparability of my findings with intra-coder agreement) and measures were taken accordingly (whether to go on in case of concordance or to review the coding system in case dissimilarities are identified). On the other hand, the base material was given to members of my interpretation groups⁴ and then their results were compared to mine (comparability by inter-coder agreement). Decision of whether to go forward or backward to step 1 (see 1.4.2 above) were made depending on outputs of the comparison. The intra-coder agreement and inter-coder

⁴ Here, I would like to recognize colleagues who supported me during the interpretation of my data. These colleagues are Abraham Tangwe Tamukum, Claude Ernest Njoya, Emmanuel Niyibizi, Eraste Kakule Jumapili Bulaya, Etienne Uwajyiwabo, Frederick Njobati Fondzenyuy, Jean Kasereka Lutswamba, Semerita Kavira Kamundu, Onja Tiana Raharijaona, and Dr. Susanne Timm.

agreement helped in broader sense to ascertain the reliability and objectivity of my findings respectively and thus overcoming of the intersubjectivity (Mayring 2014).

3.5 Ethical considerations

Knowing the centrality of ethics in research, measures including legal, moral and ethical obligations were taken into consideration to make sure that the dignity and well-being of respondents were respected (O'Leary 2010). Ethics consider the consent of what is good or harm by a particular group (Savin-Baden & Major 2013). In my study, this particular group is composed by the researcher and student teachers as interviewees / participants. Having this knowledge, anything related or leading to harming participants were reduced or even avoided in my research by applying convenient ethical issues and the desire to participate in my research came from participants own decision to share their learning experiences (Orb, Eisenhauer & Wynaden 2001).

As mentioned above in 3.2, semi-structured interviews were used to collect data in my research. This means that I needed to establish good interactions with participants for their openness during interviews. I did this during the first contact before interviews took place and ensured that the protocol especially the script part (see 3.2 above) contained enough information (informed consent) helping a student teacher to decide whether to participate or not in my research. My aim was to elaborate a convincing informed consent form (Orb, Eisenhauer & Wynaden 2001). Informed consent is defined as "the legal embodiment of the idea that a researcher should provide information to participants about the potential risks and benefits of participating in a study and should make clear their rights as participants so that they can make informed decisions about whether to take part" (Savin-Baden & Major 2013, p. 322).

Three main ethical issues are advised to a qualitative researcher for the well conduct of the research. These include but not restricted to autonomy (respect for persons), beneficence and justice (Savin-Baden & Major 2013; Orb, Eisenhauer & Wynaden 2001). These ethical issues coincide with the four ethical issues identified for the quality of interview process (the data collection method I used in my research: see 3.2). These ethical issues are "reducing the risk of unanticipated harm, protecting the interviewee's information, effectively informing interviewees about the nature of the study and reducing the risk of exploitation" (DiCicco-Bloom & Crabtree 2006, p. 319). In the case of my research, student teachers were treated as autonomous people able to decide whether to participate or not to participate after getting informed on its purpose and other preliminary needed information (Savin-Baden & Major 2013; Orb, Eisenhauer & Wynaden 2001). Participants were informed that in case of need they had the right to withdraw themselves from the interview process (DiCicco-Bloom & Crabtree 2006). Prior support to intervene in case psychological stresses had to be identified during the interview process was planned (DiCicco-Bloom & Crabtree 2006).

The identities of participants were as well kept confidential and the name of HLIs they studied in. At the beginning, every participant was given an ordinal code to anonymize his / her names. This code was made of the year, month and date indicating when the interview was done followed by two digits indicating the order of interview. Concerning HLIS, after selecting HLIS offering educational programs related to my topic, each HLI was assigned a nominal number ranging from 1 up to 13. With this anonymisation, it was realized that the identity of interviewees was not well protected. Thus, the names of lakes, and districts in Rwanda were used as anonymous names respectively for HLIs and related interviewed student teachers (see appendix 2 & 3). In addition to this, the age of respondents was anonymized using the age generations (generation Z, generation Y or millennials, and generation X), instead of using the real age of the respondents. These generations (Z, Y, and X)⁵ include people who are respectively in the age intervals of 12-25, 26-41, and 42-57. Participants were aware that legal aspects would be excluded from confidentiality if ever applicable (Savin-Baden & Major 2013; DiCicco-Bloom & Crabtree 2006; Orb, Eisenhauer & Wynaden 2001). Not only this but also, participants were informed that research processes

⁵ For age generations and corresponding age intervals, see https://www.parents.com/parenting/better-parenting/style/generation-names-and-years-a-cheat-sheet-for-parents/

require reviews and thus all materials involved in my research will be kept for this purpose. The sampling strategy (theoretical sampling) adopted in my research helped in making sure that justice is provided to the target group.

Moreover, being the researcher herself a teacher in a faculty of education, I emphasized on my role as a researcher during data collection and my own discretion to get the trust of participants (student teachers) (Savin-Baden & Major 2013; Orb, Eisenhauer & Wynaden 2001). What is more, participants were acknowledged for their contributions in the success of my research process. Straight after the interview, each interviewed student teacher was given a small gift (a small notebook with a pen or a pencil bought in Germany for each of them. This kind of gift was chosen because of the central role of a notebook and a pen or pencil in the daily work of students). They are also recognized in the section of acknowledgements of the research at hand.

4 Results: Typology of feedback based on the experiences of student teachers in Rwanda

In this chapter, I describe the findings of my study conducted on a thematic related to the quality of teacher education, focusing in particular on the experiences of student teachers in relation to feedback. I start with the description of interviewees by portraits (4.1). In the next section (4.2), I explain the field developed as result of the abduction process using the coding system as important basis. In section 4.3, the description of types is made with each type being explained in relation to the different criteria composing the field. In the last section (4.4), I summarize the main findings emerging from the previous sections.

4.1 Portraits of interviewees

As mentioned in chapter three, semi-structured interviews were used to collect data (chapter 3.2). 32 interviews were conducted with student teachers from thirteen Rwandan HLIs (higher learning institutions) (chapter 3.3). In the following, each interviewed student teacher is described with reference to a number of characteristics such as age, gen-

der, teaching experiences, HLI enrolment, and his / her main topics raised. The portarits are arranged following the alphabetical order of interviewees' anonymous names.

Interview with Bugesera

Bugesera was, at the time of the interview, single and in generation Z. She was studying in the last year at Cyohoha, a non-state university located in a rural area. Bugesera chose to study Sciences with Education as a part-time student. She did not recognize any particular problem during her former education process. Bugesera has never been a teacher, and becoming a teacher is not her first choice after completing her university studies at Cyohoha. She believes that teaching is something born with, not something to learn. Teaching should be someone's talent, a vocation. The interview with Bugesera took place in early 2019 and lasted almost 39min. Disturbed by the weather conditions at the beginning, which led us to stop for around one hour, Bugesera had some concerns about her following study course, which was affected, but she decided to continue the interview until the end.

Bugesera indicates that they⁶ [the student teachers] are involved in the teaching and learning process just from the beginning of the lesson. Teachers use different forms of evaluation, either individual or collective, to check whether students have understood the lesson or not. With this evaluation, teachers know then the level of students, an information that helps the teachers to continue with the lesson. Additional group works are given at the end of the lesson. Bugesera indicates that working with colleagues in groups helps her to understand more as she feels more comfortable to ask the colleagues whenever she has a question. Group work is the first method used by teachers, as said by Bugesera.

Bugesera stresses that focus is put on preparing them [the student teachers] how they [the student teachers] should teach and behave as for her, the behaviour of a teacher plays a role in the learning process of the learners. A teacher should be a role model of his / her learners, as per

⁶ The use of "they" in the portraits by the interviewees refers to "student teachers".

Bugesera. She thinks that the content knowledge she studied at secondary level is enough, she came at university to study rather pedagogical knowledge. She wants to know how she should behave when she becomes a teacher. From her own words, Bugesera likes especially the fact that they are motivated to be teachers. However, she does not appreciate the lack of teaching practice before doing an internship. For Bugesera, it is not good for the university if this practice is missing. If someone is doing science and does not do any laboratory practice, what can he / she give to the learners? This is something that should change, as per Bugesera.

According to what Bugesera expressed, they get motivating feedback in the form of marks after oral presentation of group works. For other assignments, feedback is given also in the form of marks sometimes on time or later during the same time as final exam's marks are published even though this is forbidden because according to what she said, students should be informed on how they did in assignments before they sit for final exams. Once they know their marks, they decide how to prepare for final exams. Feedback on the final exam is provided by teachers two weeks after the exam is done if ever no challenge happens. Bugesera understands feedback as an information from learners to tell the teacher how he / she behaves in the classroom or as a component of the communication process. For her, feedback is when you ask someone a question and he / she answers.

From what Bugesera said, she considers oral presentations useful for student teachers to prepare for teaching. This motivates her so that she cannot feel ashamed when she will be in front of learners. At Cyohoha, internship duration changed from 1.5months twice to three months once. The two former internships were combined because the study duration changed from four to three years. At the time of interview, Bugesera was in the first week of her internship.

A role model for Bugesera is the teacher who makes students like the subject he / she is teaching. She sees no reason to fail this subject and plan to imitate this teacher. The role model is, additionally, the teacher who promotes active participation of students through group works, group discussions and presentations and makes a close follow up to check whether students understand the given assignment. For Bugesera, this methodology allows students to think big and learn something. On the contrary, teachers who are not committed to their work, giving only the syllabus and them meeting again the students in the exams, they cannot serve as a good example.

Interview with Burera

At the time of this interview with Burera, she was a mother and at the beginning of generation Y. She was doing her bachelor studies in Sciences with Education as a full-time student at Rweru, which is a state university located in a rural area. She indicated that she encountered no problem during her schooling period but encountered a social problem while at university that led her to assume some unplanned family responsibility. Burera has no teaching experience but wishes to become a teacher, as teaching is her favourite job. She sees education as a vocation, a pillar of development. The most important for her is not the amount of money a person learning to become a teacher will earn in the end, but rather to be committed and to study it with love. This interview took place in the middle of 2018 and lasted about 59 minutes. Following the suggestion of Burera, the interview was done in a quiet and conducive place at the school where she was doing the internship. She showed much interest in the interview and was open enough to share her learning experience as a student-teacher.

Burera explains that teachers do their best to help them, but they mostly use lecture methods because of very big class sizes. She sees the management of such a class as very difficult and students sitting at the backside can hardly understand because the teacher's voice does not reach there properly. Besides lecturing, teachers use group discussions along with oral presentations and question and answer methods. Burera thinks that reduction of big class size, opportunity for practices and field visits are necessary for effective student-teachers' preparation.

Burera appreciates the fact that they get opportunity to ask questions on what they do not understand during the teaching and learning and

get respective answers. However, she does not appreciate the fact that they do not do enough laboratory experiments because of insufficiency of laboratory equipment, which makes them lack sufficient practical knowledge as teachers to be. Burera mentioned that they do laboratory practices in groups of up to ten student-teachers each and because of this, only few students get the chance to conduct the experiments following instructions given by the teacher.

As expressed by Burera, the way they receive feedback differ, it depends on the type of work accomplished and the teacher's availability. In case teachers are available, they do corrections of the given assignment to show students how they would have done it. When the teacher has no time, only marked copies are given. For assignments associated with oral presentation, corrections and marks are both provided afterwards. For the final exam, a list of marks showing whether a student has passed the exam or not are posted while student teachers are on holidays. According to Burera, some teachers provide individual support to low performing students, an experience that she had. Burera finds this very helpful because teachers listen to these students individually and then give them advice. In accordance with her words, feedback is an answer to the questions asked by a student to the teacher. This answer should be given in a positive way and on time. If it is not provided, then there is no feedback.

As Burera says, they have no opportunity to practice teaching at the university, except for the oral presentations of group works, and the internships towards the end of their studies. They were supposed to do a six-month internship, but that was extended to eight months. For Burera, if financial means were ever available, twelve months would be more useful for student teachers to do enough practices. On the contrary, a short internship of four months for example would be enough. While at the school, she did an observation of one month before starting teaching with a close follow up from a teacher assigned to help her. She could get regular feedback from this teacher. Besides, they are visited by school-based mentors and university supervisors. School based mentors are appointed by her university, from school leaders or teachers, for close

follow up of student teachers during internship. The university supervisor, as Burera said, comes to the schools to check if student teachers might have challenges, and then visit them in the classrooms to see how they teach in order to advise them afterwards about identified weaknesses and how to improve them.

Interview with Gakenke

Gakenke is a married man in generation Y. The interview with him took place in late 2018. At this time, he was a middle-experienced teacher and at the time a Technical Vocational Education and Training (TVET) teacher. He was among the teachers participating in the in-service training for TVET teachers taking place at Ruhondo higher learning institution. Even though Gakenke had experience in teaching, he did not undergo any teacher training before. He is teaching technical courses but without any prior pedagogical knowledge as well as content pedagogical knowledge. The interview with Gakenke lasted about 36min. Due to the structure of this programme, I was obliged to conduct the interview with Gakenke during break time in a room at Ruhondo. At the beginning, the interview went well but towards the end we were disturbed by people passing around.

Within the interview, Gakenke appreciates not only the content but also the way they are taught. According to him, this is what was missing for the effectiveness of their job as teachers. Teacher educators are perceived as role models to him regarding the competence-based approach they are expected to use after completing the training and for establishing a good learning climate. However, due to combining the training and regular work, they are obliged to cover 15 modules in a short time. For him, the day is overloaded, and they do not get enough time to revise and work on given assignments. This also affects them as it limits the possibility of talking to teachers after class regarding problems in their learning process. However, the fact that teachers allow them to ask questions they have either at the beginning or during the class is of great help for their learning process. He does not recall any instance when teachers rejected students 'questions during the class.

Due to this training, Gakenke recognizes that he was denying his students the opportunity for feedback, yet it is important for an effective learning process. He appreciates the feedback they get as teachers do not only give them their examination papers to see their marks but also discuss with them to identify their weaknesses and to give them advice for good preparation of the reassessment. In this programme, students are assessed as either competent or not yet competent depending on the level of compliance with predetermined criteria. These same criteria are referred to while providing feedback to students individually. However, Gakenke does not understand that feedback should be a two-way communication between the teacher and students as for him; feedback is when the teacher shows students their marks after an assessment and how they would have answered failed questions.

Gakenke expressed that they will do an internship of two weeks but not in schools rather in industries or companies depending on their areas of specialization. For teaching, they are expected to go back to their schools and train their colleagues as multipliers. For him, he sees this as an opportunity of implementing and getting more familiar with what they are learning in this programme.

Interview with Gasabo

Gasabo at the time of the interview was in the generation Y, and not yet married. Gasabo was a student in the last year of his studies at one campus of Kivu HLI, which is located in a semi-urban area. Before joining Kivu, the student had completed two years at another university after which he got a Diploma in Higher Education⁷ allowing him to teach in secondary school at ordinary level. Gasabo was a beginner teacher at a secondary school – a job that he combines with studying at Kivu. He explained that he teaches during working days, and studies during the week-end (From Friday evening to Sunday morning) since he is regis-

⁷ According to the Rwandan National Qualification Framework (RNQF), Diploma in Higher Education is a Higher Education Degree offered after completing an academic program which duration is two years equivalent to 240 credits (One credit having the equivalence of ten notional hours).

tered as a part-time student. At Kivu, he was studying social sciences with education. He expressed that he had to stop schooling for some years because of financial problems. According to his words, Gasabo expressed his happiness with his job as a teacher. This interview with Gasabo took place in the middle of 2017, and it lasted nearly 33 min. The interview took place in a selected room at Kivu to avoid any kind of disturbance, and Gasabo was open, and interested to share his experiences.

Gasabo indicated that they are taught at Kivu according to the current curriculum implemented in the Rwandan secondary education system. Gasabo appreciates especially the fact that they are involved in the teaching and learning process through group works followed by oral presentations as well as immediate feedback. However, as mentioned by Gasabo, strong students are chosen to present the findings of group works. Gasabo appreciates the fact that they receive immediate feedback on questions asked by students during the teaching and learning process. On the contrary, Gasabo indicated that he dislikes waiting longer to get feedback on continuous assessment tests (CATs⁸); he explicitly mentions that it is always a problem for him to sit for final exams without knowing how he performed in CATs. Gasabo understands feedback as a response to what someone did. According to him, getting back marked examination scripts helps them know their strengths and weaknesses.

Regarding teaching practice, Gasabo indicated that he did one internship of six months at the end of the advanced diploma programme. As he said, he was helped by the close follow up and encouragement from the cooperating teacher and school-based mentor as well as supervision by a university teacher. According to Gasabo, it would be better for student teachers to do a full school year internship if ever financial means are available for student teachers. Gasabo suggested that teacher educators should be role models for student teachers regarding providing good feedback, and that teacher education should be adapted to the

⁸ CAT: Continuous Assessment Test.

contextual situation⁹ of the level of education for which they are being prepared.

Interview with Gatsibo

Gatsibo, at the time of this interview, was a married man in the millennial age. He was doing his last year of studies in Sciences at Nasho non-state university, which is located in a city, as a part time student. He has had to suspend his university studies because of social and financial problems. As he said, Gatsibo has been a primary teacher for some few years, and he is now working as a part-time secondary teacher. He considers teaching as a favourite job that makes him feel happy while teaching students. This interview was done in the middle of 2009 and lasted nearly 47min. It took place at a business centre nearby his home place in order to comply with his request. The interview was done in a conducive atmosphere where Gatsibo was open enough to share his experiences.

According to this interview, teachers use real-world classroom simulations to show Nasho student teachers how they can handle these situations, which Gatsibo appreciates in his learning. However, Gatsibo does not like the fact that some learning materials are lacking or not enough for students, as well as the late submission of grades, sometimes because of technical problems related to the university's online system. Gatsibo associates some issues, such as teachers who do not respond to students' emails and fail to diagnose students' learning problems to insufficient training. According to Gatsibo, they receive comments in terms of grades, either via the university's online system or as an email list. This feedback is usually late, but he knows that timely feedback would be helpful in preparing for further evaluation. Gatsibo considers the fact that students have to pay to have access to their exam papers in case anyone wants to complain as a barrier to receiving feedback.

 $^{^9}$ The interviewee was referring to changes happening in lower levels of education in Rwanda like for instance the implementation of competence-based education, use of smart classroom

With regard to teaching practice, Gatsibo mentioned that they do an internship of four months, which is arranged by the university. However, this duration is enough for him considering competences he would wish to acquire, as he said. The student teachers follow up is done in collaboration between the university and the school but with some rooms of strengthening this collaboration, as Gatsibo mentioned. He appreciates advice provided by university lecturers at the first visit as with the second visit they could see related improvement in his teaching. A teacher who promotes a good learning environment along with provision of individual support and timely feedback to students' questions is his role model.

Interview with Gicumbi

Gicumbi is a student at Ruhondo – a state institute located in an urban area. He attends an in-service programme organized for TVET teachers. When the interview was conducted, Gicumbi was in generation Y, married and a middle-experienced IT teacher. Gicumbi mentioned that he had to repeat a class while at university due to financial problems. The interview with Gicumbi took place during break time in one room at Ruhondo towards the end of 2018 and it lasted nearly 51min. Some people who passed near the room where the interview took place caused disturbances, but the interview still went smoothly until the end. The training programme he is attending has a multiplier aspect as he mentioned that they are being trained not for improving their own teaching process but also to help reach as many TVET teachers as possible and in a short time. Gicumbi alternates between attending courses at Ruhondo and teaching at his school - a combination, which is difficult for him. Courses at Ruhondo are dominated by pedagogical knowledge because participant teachers are assumed to have already content knowledge but with a gap of pedagogical and content-pedagogical knowledge. This special programme was organized by the government of Rwanda in partnership with an international development cooperation agency to bridge this gap.

At Ruhondo, both teachers and students have portfolios in which they classify evidence regarding teaching and learning processes respectively. At the beginning students get instructions regarding how to arrange their portfolio on a regular basis. These portfolios are at the end of the programme used to check whether a certain student has already fulfilled all the academic requirements for getting a certificate. In this programme, student teachers are expected to teach and assess their students the same way, as the trainers do. Yet according to Gicumbi, even though they receive best practices, which he would wish to apply in his daily teaching practices, it seems difficult as schools where most of them are teaching are located in rural areas and cannot afford the cost of needed teaching and learning materials. In this programme of training TVET teachers at Ruhondo, student teachers are assessed as competent or not yet competent meaning a failure (less than 70%). In case of failure, a student teacher is reassessed until he/she succeeds the module. Concerned students get time for preparing the second (or plus) sitting exam and are, during this time, not helped by teachers rather by colleagues who passed the exam. Gicumbi appreciates the fact that they are given assessment requiring them to read and understand not simply an assessment encouraging rote memorization but when it comes to redoing the exam, setting the same questions as before is the only support from teachers to students who failed the exam. Teachers are the ones who decide on whether a certain student is competent or not yet competent.

According to Gicumbi, feedback is the result of what someone has done like for instance results provided by the teachers after an assessment. In case of online exams, students receive immediate electronic feedback, not followed by any conversation with the lecturer. The students, who failed, wait for the re-assessment. As Gicumbi did not learn how to teach before because such programmes preparing TVET teachers did not exist, he perceives this programme as a solution to improve his daily teaching practices. Before attending this programme, it was difficult for him to manage the classroom more especially when individual support was needed. For teaching practice, students at Ruhondo are giv-

en an opportunity to prepare one lesson and teach it to a small number of colleagues as well as trainers who are there to decide whether a student is competent or not yet competent i.e. has to redo the exam. During preparation, students are accompanied by trainers through regular feedback till their lesson plans are approved for delivery but after teaching, only general feedback in terms of marks is given. Even though the programme intends to provide TVET teachers with pedagogical knowledge, a non-school based internship of two weeks is to be done and students are allocated in different industries depending on the area of specialization. Towards the end of the interview, Gicumbi mentioned that he likes the teaching profession but intends to leave it in case he finds a better opportunity because of low living standards of teachers.

Interview with Gisagara

At the time of interview, Gisagara was in generation Z and not yet married. He was a full-time student teacher in the Faculty of Science at Rweru University, a state institution, located in a rural area. At the time of the interview, he was in the last year of his studies and more especially doing an internship of six months in a boarding secondary school. The interview with him took place in middle 2018 and lasted nearly 01h 07min. At that time, he had no prior experience in the teaching career as he went to university straight after completing secondary school. His plan after graduation was to look for a teaching job in case, he does not find an opportunity to continue studying as teaching is something good for him i.e. his favourite job. For him, teaching is something one should like in order to succeed otherwise it becomes complicated.

In his studies at university, he appreciates the way they get not only content knowledge but also pedagogical knowledge and pedagogical content knowledge. More additionally, Gisagara likes the way they are taught with enough opportunities to participate actively in their learning as well as learning facilities put at their disposal in the campus. Besides given assignments to work on either individually or in groups, teachers provide office hours to be used by students in case they have questions to ask. Such teachers are role models to Gisagara as for him; a positive

teacher-student relationship is something very important in the learning process. Even though Gisagara is aware of the importance of feedback in the learning process, he is unhappy about late feedback they get especially on summative assessment. He wishes this to be corrected and intends to do the opposite for his students when he will be a teacher. Feedback is mostly given in the form of a list of marks on the notice board but with possibility to get specific feedback in case students ask for it during counselling hours. This is in line with the way Gisagara understands feedback as for him, feedback means simply how students receive the marks of the assignments and / or assessments they do.

What is particular for the University of Gisagara is the combination of internship and action research. This combination is something very important for Gisagara because it helps for reflective teaching. He takes an internship as a working situation as for him it would be better if student teachers could get some money to help them during the time for internship. For him, six months are enough in case used responsibly. Even though, at the fourth month of his internship he had not yet been visited by the university teachers he could get close follow up from cooperating teachers and school coordinating mentors as well as feedback after collegial observation. However, Gisagara suggests teacher education to take into consideration ongoing changes in the education systems for student teachers to be effectively prepared for their future career.

Interview with Huye

Huye is a woman part of generation Y. At the time of interview, she was a part-time student at Rweru University located in an urban area. She was in level II Social Sciences with Education. After finishing secondary school, Huye delayed starting university studies because of personal reasons. Huye was a middle experienced primary teacher, something that she combined with studying at Rweru. She sees low living conditions of teachers as a barrier for learning to become a teacher. However, Huye considers that learning to become a teacher is very important for her

professional development, as she did not do teacher education before. She plans to continue her career in the teaching profession.

The interview with Huye took place in late 2017 and lasted about 44 min. The interview was conducted at a place near her home. During the interview, we have had to take some breaks from time to time to allow Huye fulfil family responsibilities. Even though it was the case, we managed to continue the interview until the end.

As said by Huye, they face serious invigilation and related regulations to avoid any cheating during examinations. On one hand, she appreciates the fact that they are given the opportunity to actively participate in the teaching and learning process without waiting for everything to come from the teacher. In addition, the way that teachers complete their ideas to help them understand better topics worked on by students in different groups. On the other hand, she does not appreciate the fact that they delayed to complete their studies due to administrative reasons.

With regard to feedback, Huye expresses that they receive feedback in the form of marks provided by teachers mostly one month after an examination is done or later and depending on the deliberation schedule. Marks are posted on the notice board using registration numbers to keep students anonymous. They have the possibility of complaining in case not satisfied with received marks. In case of failure, a possibility for a second sitting exam is given and, in this case, students use handouts to correct the previous exams, as it is very rare for teachers to set questions outside from the given handouts. For difficult questions, the teacher's intervention is sought. This shows a culture of focusing on marks as a barrier with regard to considering exams / assessment as a source of learning through feedback.

As per Huye, she did an internship of three months with regular follow up and feedback by school-based mentors as well as cooperating teacher. However, there was no visit by any university teacher, yet it was promised at the beginning of the internship. Microteaching sessions were planned after the internship to assess students but until this interview, they had not taken place yet. A need for a well-developed mentorship system to ensure that students' teachers get regular feedback during internship was mentioned. Moreover, this interview indicates the need of a programme transforming student teachers with a certain teaching experience into good teachers.

Interview with Kamonyi

At the time of this interview, Kamonyi was in generation Z and still single. He was doing his last year of university study at Rweru University, as a full-time student in Sciences with Education. As indicated by Kamonyi, he faced social problems that affected his schooling for a certain number of years. Kamonyi mentioned that he has not been a teacher before. However, he showed interest towards the teaching career knowing that it is a challenging career, as he said, because of nowadays students who prefer an easy life at school. More additionally, he is proud to learn to become a teacher even though he is aware that teaching is a demanding job with a low salary. This interview took place in the middle of 2018 and lasted almost 01 hour 22 minutes in a quiet place nearby the school where Kamonyi was doing the internship something that put him in a position of sharing openly his experience.

As per Kamonyi, teachers teach using either projectors or chalk-boards in case of sciences subjects which require demonstrations, and then give them assignments to work on in groups after class. Kamonyi thinks that student teachers should be self-responsible for their learning process, and not wait for someone to remind them what to do. Kamonyi mentioned that the lecture method is mainly used by teacher educators. They transmit what they have prepared and then allow some questions from students in the classroom and later in their office. As Kamonyi explained, when student teachers go into the teachers' offices, they first listen to students, how they did and where they encountered a problem, and then use that information to help them.

Kamonyi appreciates the fact that the university provides facilities to make their learning effective, including space for self-learning time in the campus, individual laptops and a student restaurant in the campus. Kamonyi showed discontent regarding the insufficient or nonfunctioning laboratory equipment. For him, this situation denies them the opportunity to conduct laboratory experiments. Kamonyi stressed that more emphasis is needed on how student teachers are prepared with regard to content-knowledge, especially content to be taught in high school and laboratory practices. As for him, giving laboratory practices as a character of assessment is not good or even in this case, descriptive feedback is needed because marks alone tell them nothing with regard to needed improvement.

After submitting the given works, teachers mark and then give or send the marked copies to students for checking before the marks are recorded. Students who are not satisfied with given marks get the opportunity to complain and the teacher, for the next session, makes corrections of the most difficult question responding at the same time to the student's additional questions. According to Kamonyi, the fact that they are shown marks on formative assessment before the final exams take place, is very helpful. As he said, this helps them in the preparation for the final exam, especially to those who failed the continuous assessment. For the final exam, feedback in the form of marks is only given. The time to get feedback depends on the type of given assignment. For group work, feedback is quicker as teachers have to mark a few copies. It is rather delayed for individual assignments because of the big class size. Kamonyi understands feedback as a two-fold concept: feedback from students to the teacher and feedback from the teacher to the students. On the one hand, a teacher can get feedback on his / her teaching by asking questions to students and on the other hand, a teacher can provide feedback to students by giving them back marked copies for students to see how many marks they scored in a given assignment.

Kamonyi said that during the second year, they used to do microteaching in one of the two subjects they are studying. The microteaching had to be prepared in small groups of five persons and each group was given 15 minutes for presenting to the rest of the class what they prepared. As per Kamonyi, this exercise was very helpful to him because he developed self-confidence afterwards and could then stand firmly in front of a big group of people. After the microteaching, the concerned teacher could tell them the marks obtained by each group and comment

on identified mistakes or weaknesses, focusing in particular on the correctness of the content, non-respect of time and lack of confidence. As they did this microteaching only once, Kamonyi thinks that all the 15 minutes should be given to one student because three minutes allocated to one student in the group could end before the student is able to say something.

With regard to internship, as indicated by Kamonyi, the supposed 6 months was extended to seven after they started. Kamonyi sees the internship very important for the preparation of student teachers and wonders how a person could behave if no internship was planned. He said this referring for instance to the fact they were taught to teach according to the knowledge-based curriculum, yet this curriculum was no longer in use at secondary level. Thus, they could, with the internship, be able to update themselves. The internship started with an observation of one month and then teaching. During the observation period, they could learn from cooperating teachers, and then come up with a topic for the action research because their Internship was combined with action research. However, Kamonyi felt that there was not enough time for the action research. They were helped by the cooperating teacher and the school-based mentor chosen from the school staff by Rweru university to provide support and supervision on the field. The school-based mentor was involved in providing regular feedback, helpful for auto-evaluation as per Kamonyi, marking student teachers and provision of regular report to Rweru university with regard to how student teachers are doing in the internship. As mentioned by Kamonyi, he was, additionally, visited by a supervisor from the university who observed his teaching while filling the evaluation form, gave him feedback on what to correct and then allocated marks. According to Kamonyi, internships could be more effective if done in the middle of their studies rather than at the end to allow student teachers to have more feedback on what and how they did, to learn more from the teachers who supervised them, and share experiences with colleagues.

In addition, Kamonyi thinks that teacher educators should serve as role models to student teachers as according to him, teachers tend to teach the same way they have been taught which affects the whole education system.

Interview with Kanombe

Kanombe was, at the time of this interview, still single and at the end of generation Y. He was in the middle of his studies in languages at Rwanyakizinga – a non-state university located in a rural area as a part-time student. As he explained, he experienced a situation of negative feedback that affected his schooling. Even though he is a beginning primary teacher, Kanombe does not see teaching as a favourite job, which the young generation would wish to join because of the low salary. For this, he plans to deviate in case opportunities for well-paid jobs are available. The interview with him took place at a business centre nearby his university and lasted for practically 51min. He was interested to participate in this research and open enough to share his experience.

The fact that Kanombe succeeds in his learning makes him appreciate the way they are taught at his university. He also appreciates a good relationship with teachers that allows them to feel free to ask questions. Kanombe expresses that they know their results via a list displayed on the noticeboard, but the respective teachers would sometimes inform before them. For him, getting feedback on assessment in terms of marks displayed on the noticeboard is enough provided that he did not fail. As per Kanombe, in case a student fails an exam, the only support given, is to allow him / her to sit for a supplementary exam. From what he says, one could see that he is not aware of the fact that feedback should be an integral part of the teaching and learning process. However, he understands that teachers should provide encouraging and balanced feedback after oral presentations of group works.

Kanombe mentions that student-teachers, at his university, do not do any microteaching. He was not yet doing an internship but was aware that at his university, it is done twice for three months each and that the university collaborates with the school for close follow up. For Kanombe, doing a two-phase internship is more helpful than one internship. According to him, sufficient teaching practices are necessary so that stu-

dent-teachers acquire desired professional skills. The role model to Kanombe is a teacher who establishes a good learning climate and takes care of language clarity.

Interview with Karongi

Karongi is a married woman living in a rural area nearby the secondary school at which she is a teacher of languages. During the interview with her, she was an experienced teacher in generation X. Karongi likes the teaching career and would like to continue with it even though she is aware that it is a job with less income. Teaching is, according to her, a safe and secure job. She was doing the last year of her studies at a non-state HLI Ihema and located in an urban area. As a language teacher, she chose to enrol in the department of French-English. She did a week-end-program with intensive attendance during school holidays. According to Karongi, it is not easy to combine working, studying and family especially when there is no guaranteed hope of being promoted after completing the university studies. The interview with her took place in late 2017 and lasted nearly 40min. Being done in a church garden, we were moment-to-moment disturbed by people who were passing around as well as cars passing in the main road nearby.

She appreciates the learning climate where for instance teachers knew their social background (combining studies with being married and children to take care of) and helped them cope with this situation and then progress well with their studies. Karongi appreciates working on a given assignment in groups with classmates and especially the intervention of the teachers during oral presentations of group works. Regarding feedback after assessment, it is more often provided late and collectively via lists posted on the notice board for each student to check his / her marks and this is fine for her. However, one is required to pay a certain amount of money in case of dissatisfaction about examination marks for seeing his / her examination paper and then re-marking afterwards. Nevertheless, they get timely feedback during internship but mostly superficial and one-way feedback i.e. imposed by the givers. A teacher from her university visited her once and especially for giving her

marks. According to her, this limitation of university follow-up is related to the high workload of teachers and big number of students. Karongi shows the need for school visits for experiential learning.

Interview with Kayonza

Kayonza was, at the time of this interview, in generation Y and single. She was completing her final year of language studies in Nasho, a non-state university located in the city, as a full-time student. As she said, she dropped out of high school for a while because of health problems. She has been a part-time high school teacher for a short period, and she wants to continue her teaching career after graduation. This interview was conducted in mid-2019 and lasted almost 01h12min. It was held near the interviewee's residence place so as not to disrupt her studies. Kayonza showed interest in participating in this research and was open enough to share his interview.

As Kayonza mentioned, teachers use group works followed by oral presentations in order to comply with ongoing changes in the Rwandan education system, especially with regard to implementation of competence-based curriculum. She appreciates the fact that teachers train them to support one another through group works. She is as well encouraged by the reputation of better performance of the graduates from Nasho on the labour market. While working in groups, they receive teachers' support, as she said. They receive marks via the university online system and someone has to pay in case not satisfied with the given marks. This puts them in unfavourable conditions for requesting feedback and, in general, marks are communicated with delay. However, her understanding about feedback is limited to the provision of marks.

With regard to teaching practice, a simulated microteaching is prepared where immediate feedback is given to the student, so that students can learn from this feedback and see where to correct in the next activities. In addition, they do two internships of three months each, one in the middle and the second at the end. According to Kayonza, it would be preferable for the internship to be extended to one year as this would allow student teachers become familiar with their career and acquire the

desired professional skills. During internship, university teachers visit them twice, that is, once for every internship. She sees encouraging, balanced and solution-oriented feedback given afterwards helpful. However, she experienced limited follow up by the cooperating teachers, but could be helped by a mentor given by the school. From what she said, lack of reflective teaching as well as some elements of technical rationality model of teaching could be identified.

For effective preparation of student-teachers, she indicated the need for regular teaching practices, followed by feedback to enable student teachers acquire desired professional competences and the harmonization of teacher education programmes at universities.

Interview with Kicukiro

Kicukiro was, at the time of interview, married, and part of generation Y. He was doing his studies at the main campus of Kivu which is located in an urban area. He was doing level IV, and enrolled in Social Sciences with Education as a part-time student in the weekend programme. He said that he stopped schooling due to political problems and had to repeat classes due to health problems. It took him some years to resume schooling afterwards. He was an experienced teacher at primary level, but at the same time assuming some administrative responsibilities, which he combined with studying at Kivu. In accordance with his words, he sees low living conditions of teachers as a demotivating factor for learning to become a teacher. He considers teaching as a career, which requires that you like it as well as the students you are teaching, and in addition to this prior preparation of what someone should teach.

The interview with Kicukiro took place in middle 2017 in one of the rooms at Kivu and it lasted nearly 54 min. The interview was conducted in a good atmosphere and the interviewee was interested and open to share his experience. However, we were disturbed by noise of some students who were passing around that place, but this did not stop us from continuing the interview.

Kicukiro says that most teachers firstly give an overview on the new lesson and then let them work together in groups on given topics. Both rote learning and meaningful learning are used depending on the teacher. He especially appreciates when they are involved in the learning process and given opportunity for learning communities. However, he does not like when teachers teach by only reading notes to students without writing on the blackboard as with this, it becomes difficult for some students to follow the lesson. "Reading, every student can do it". They would rather like teachers to explain and help them understand the lesson.

With regard to feedback, Kicukiro expresses that in case of group works, the teacher lets students know what is missing in their works. For other assessments, they receive late feedback via posted results and some teachers do not even communicate the results to students. This led some students to think that some teachers do not mark examination papers; they rather give students marks randomly and then in this case, students ask for their examination papers to verify whether they have been corrected. However, they find it difficult to find a teacher in case a student is not satisfied with given marks. However, some teachers willingly show students examination papers to check the reason for failure. Kicukiro thinks that teachers delay giving feedback because of much work. Yet as per Kicukiro, feedback helps students to know how to answer in the subsequent exams of the same teachers i.e. to learn how a teacher asks questions and corrects students 'answers. Kicukiro is convinced by the fact that feedback on assessment should be provided to students on time i.e. before any subsequent assessment is done as the failure in one may lead to the failure in later assessments.

Kicukiro had not yet done an internship but suggested regular visits by university teachers as he heard that some students complete internships without any visit. For Kicukiro, a teacher who gives everything to students, explains the content until students find it helpful, and continuously controls the level of students 'understanding before starting a new lesson is his role model. He finds a teacher who does not give everything to students discouraging. To sum up, Kicukiro expresses the need for effective communication between student teachers and the university.

Interview with Kigali

Kigali was, at the time of this interview, at the end of generation Y. She was at the beginning of her studies in languages at Sake, a non-state university located in a rural area as a part-time student. Kigali is a primary teacher with advanced experience. However, she does not want to continue in the teaching career in case there is another opportunity because, according to her, teaching is a degraded job in society, which leads teachers to low motivation. This interview took place towards the end of 2019 and lasted almost 35min. It was conducted at a business place where we both agreed to meet. Even though short, Kigali responded positively to my request and shared useful experiences for this research.

She appreciates working in groups with colleagues as it helps her understand more as well as the fact that some teachers use tangible reinforcements to encourage regular attendance of students. As she said, they receive marks through lists displayed on the noticeboard, except for marks of assignments that are communicated timely to them by the teachers themselves. However, she expressed her dissatisfaction regarding delays in providing feedback, something that put her in a situation of uncertainty. Kigali understands feedback first as a component of communication and then provision of marks to students.

As she mentioned, they get opportunity to do simulated microteaching with colleagues at university, after which an encouraging, balanced and solution-oriented feedback is given in cooperation between the teacher and other students. At the time of this interview, she was not yet doing the internship, but she knew that it was taking place the following academic year for a duration of six months. She was expecting a one-day visit from the university teacher after which she would get helpful comments. Her role model is the teacher who promotes active participation of students aiming at providing enough examples for maximizing students 'understanding of the lesson. As she said, a teacher who uses traditional methods such as lecture methods via a PowerPoint presentation without putting students at the centre of his / her teaching cannot be her role model. For Kigali, harmonization of teacher education programmes

across universities and HLIs is essential to ensure effective preparation of teachers.

Interview with Kirehe

At the time of interview, Kirehe was a young man in the generation Y. He was doing his last year of university studies at Muhazi in Social Sciences with Education. During his previous studies, he had recognized some school failures due to the family responsibilities he had to assume at a young age. Kirehe has no teaching experience except the internship he did as part of his studies at university. Kirehe expresses that he personally likes to become a teacher but adds that some student-teachers do so for lack of other alternatives, some consider teaching as low-paid work, some underestimate education, thinking it is an easy field. He thinks that a person cannot be an effective teacher if he / she does not like the teaching career. However, Kirehe depreciates the fact that some people underestimate the teaching career, thinking it is a job that everyone can do in case he / she misses a job for which he / she is qualified. He thinks there should be restrictions on the recruitment of teachers. Kirehe perceives teachers as important persons, who should be exemplary in the society. This interview took place in early 2019 in the main campus of Muhazi, at the request of Kirehe, in the place where the disturbances were minimized to the maximum level. It lasted almost 01 hour 06 minutes and went smoothly. The interviewee showed interest to share his experiences.

Kirehe said that teachers involve them in the teaching and learning process through group works, after which they share the results. By providing feedback on their works, teachers complete what they did, tell them what is missing and what they should improve. In his view, class attendance is compulsory as well as giving some marks to students in order to encourage regular attendance and thus minimize their absenteeism. During assessment, as per Kirehe, rote memorization is avoided; the focus is put rather on questions promoting critical thinking. He takes this as an example of questions student teachers should prepare for their own students. Kirehe expresses that they are provided with

knowledge preparing them how to teach. Thus, he likes the fact that they are given opportunity for simulated microteaching with classmates after which the concerned teacher takes advantage of the microteaching to check whether his / her students qualify for teaching in high schools. Kirehe indicated that something special at Muhazi is the promotion of learning communities among students especially by involving best performing students in the mentorship process in the preparation of exams. As he said, low performing students benefit a lot from this students-based mentorship system. Students-mentors do this either voluntarily or upon request of the university. When asked what he dislikes, Kirehe suggested that the university should help students get places for internships and avoid interfering with classes to let student teachers have full time to learn from the internship.

Concerning feedback, Kirehe understands it first as a component of the communication process. With regard to educational context, Kirehe expressed that after submitting given works, they need to know whether the teacher has received them. When the teacher gives them back the marked copies or results, they consider them as feedback. With this, they can see how the teacher has judged their works, appreciated them and have criticized them. This is the same with what he said that on formative assessment, they receive timely feedback in the form of marks along with examination copies so that a student may rise his / her complaint or questions if any. What is more is that feedback in the form of rewards is given to best performing students at the end of the year in order to encourage students to work hard.

Kirehe indicated that, at Muhazi, student teachers do one internship of 1.5 months in addition to microteaching (above described). According to him, this duration is not enough especially with regard to getting familiar with students. It would be better to extend it to three months or a school term, as per Kirehe. During internship, both the university and the schools do the supervision. As far as he is concerned, a teacher from Muhazi visited him once. He / she observed how he was teaching and then gave him marks. The school leaders gave the other part of the marks.

A role model to Kirehe is a teacher who provides constructive feedback, who always encourages students even when they make mistakes. In this case, he is not afraid to speak in the class. However, a teacher who insults students when they make mistakes cannot be his role model.

Interview with Muhanga

Muhanga is a married man and an experienced teacher at a primary school located in a rural area. When this interview was conducted, he was in generation Y and studying in level V at Cyohoha HLI, which is located in a semi-urban setting. Muhanga chose to specialize in Economics with Education, a choice that is justified for him as he does not aspire to continue teaching once an opportunity in this field arises. To comply with his job obligations as a teacher, he is enrolled in a weekend programme.

The interview with Muhanga took place in early 2018 and lasted nearly 1h16min. Following his wish, the interview was conducted in a schoolroom near his home to facilitate his transport. Doing the interview at a school helped to avoid disturbances as it was during school holidays in Rwanda. Muhanga was very open and ready to share his experiences from the beginning to the end of the interview.

The interview with Muhanga shows that due to low living conditions of teachers in the Rwandan context, some student teachers do not consider teaching career as their first job choice but desire to look for alternative opportunities. This interview indicates that even though student teachers do internships, there is still a necessity of reflecting on its efficiency for better preparation of teachers. In addition, Muhanga shows an understanding of feedback limited to provision / getting marks.

Interview with Musanze

Musanze was, at the time of this interview, in the generation Y and still single. He was in the middle of his studies in science at Rwanyakizinga, a non-state university located in a rural area as a part-time student. After working as a primary teacher for less than five years, he is now assum-

ing some school administration responsibilities. He considers teaching as a vocation and is studying to specialize more in his career and improve his qualification. He aspires to continue teaching but with a probability of leaving this job in case he finds a better paid one. This interview took place towards the end of 2019 at a business centre nearby his home place and lasted nearly 53min. He accepted willingly to participate in this research as he proved his experiences that he shared during this interview.

Musanze expresses that teachers at his university use mainly group works accompanied with oral presentations after which they provide explanations helping them to understand more. He appreciates the immediate and helpful feedback they receive from teachers after oral presentations of group works. He likes as well as the combination of theory and practice where they do laboratory practices as well as some field trips, something he sees important for science student-teachers. However, he does like teachers who use lecture methods especially with power point presentation, sliding only without explanations as according to him; student teachers could read the slides themselves. As Musanze explained, there is no common way feedback is given to students at Rwanyakizinga. Every teacher does it, as he likes. They receive feedback mostly in terms of marks with possibility of complaining in case a student is not satisfied with received marks. He sees the fact that teachers show them their marks along with examination booklet more helpful and bringing more transparency than only displaying marks on the noticeboard. Musanze understands the importance of feedback in the learning process but with limitation to provision of marks.

As Musanze explained, student teachers at Rwanyakizinga do internship of three months twice. For him, an internship is very useful in acquiring professional skills. Besides the school leaders and cooperating teacher, he was also visited once by university teachers for awarding marks and providing some advice. As he said, managing the class was a challenge during the first days of his internship until he became familiar with the situation. He associates this challenge to the fact that there was no microteaching done before. A role model to Musanze is a teacher

who takes care of language clarity and with professional consciousness. He sees experiential learning very important to ensure effective preparation of student-teachers.

Interview with Ngoma

Ngoma is a full-time student teacher at Cyohoha which is a non-state university located in a rural area. At the time of interview, he was a generation Y, single and had no teaching experiences yet besides internship. Ngoma understands there exist different push factors behind doing teacher education at university, employment status and feeling of someone about teaching profession are some of the determinants as said by Ngoma. In this regard, some make this choice voluntarily while others are forced either by the socio-economic or working conditions. However, becoming a teacher is Ngoma's dream and he knows that achieving one's aims requires effort but he adds that it becomes easier as far as someone pursues what he/she likes. He takes teaching as his professional career; the reason why he, himself, chose learning to become a teacher with the objective of contributing to education quality improvement in his country. The interview with Ngoma took place in early 2019 and lasted nearly 55min. Upon his request, which I accepted, I travelled to his place and the interview was conducted in the same area.

As indicated by Ngoma, learning communities are used by teachers, at Cyohoha, to promote peer learning between strong and weak students. Strong students selected them to make an oral presentation of their group works' findings, a process by which weak students get more engaged in the teaching and learning process. This is encouraging. This peer feedback helps those slow students to improve their performances. Ngoma mentioned that, after group work, they receive prompt feedback from the teachers in the form of grades. With this, Ngoma thinks that marks are enough to inform someone what to do in order to avoid subsequent failure because students should play a central role in the learning process. He, additionally, indicates that this evaluative feedback helps them identify their weakness. If lower marks are given on the oral presentation and better on the written presentation for instance, they

then know that they have to improve oral presentation skills, especially the group representative. However, in line with what he said, Ngoma shows some complacency with regard to the feedback provided by the teacher to students that he considers weak. He does not consider this feedback as an opportunity he could learn from. In this case, according to Ngoma, feedback concerns only the weak students.

In the understanding of Ngoma, feedback means providing marks to students or informing students whether they succeeded or failed. For helping students achieve predetermined objectives, teachers should be serious in marking and not giving free marks. In addition, not providing timely feedback to students is a failure, as per Ngoma.

Ngoma appreciates the fact that teachers involve strong students to help colleagues with weaknesses in understanding some laboratory experiments, something that they do along with providing peer feedback. In addition, Ngoma appreciates the use of modern technology in teaching and learning process, such as video conference and feedback via online portal, as it has respectively helped to solve former teachers' shortage problems and expected easy access to feedback without having to travel to university when marks are published during holidays. In addition to this, students are allowed to make use of laboratories to carry out individually planned experiments through which they can get teacher's feedback when asked.

Ngoma mentioned that at Cyohoha student teachers do two internships of three months each and with one-year interval, something that he considers important for the professionalization of student-teachers. During the first internship, Ngoma was scared to stand in front of learners, did not know how to deal with disturbances and was dominated by traditional teaching but he improved thanks to the support of cooperating teachers and supervisors from the university, especially during the second internship.

A teacher who shows good mastery of the content, who uses teaching aids and promotes active participation of students in the teaching and learning process is a role model to Ngoma, however an ex-cathedra teacher cannot.

Interview with Ngororero

Ngororero is a female student-teacher at Muhazi which is a non-state university located in a suburban area. To be able to combine studies with her regular work as a teacher, she chose to register as a part-time student and especially in the evening program. At the time of interview, Ngororero was in generation Y, married and was an experienced teacher who worked first as a primary school teacher and then a nursery schoolteacher. She had had no special problem in her educational background except the fact that she started university studies 9 years after finishing high school. At the beginning of the interview, Ngororero revealed that she likes being with children. Teaching is her favorite profession, the reason why she had already studied education in high school and continues in the same direction at university to improve her pedagogical knowledge. She is aware of the fact that there is no high salary in the teaching career but aspires to continue in this domain. According to Ngororero, passion is more important than money. The interview with Ngororero took place in early 2019 and lasted about 46min. The interview was conducted in a quiet garden nearby her working place.

Ngororero understands that at university, students should not expect everything from the teacher but rather should be actively involved in their learning process. Discipline based on religious background of the university, attendance control, small class size, and transparent structure, especially regard to provision of marks to students, are the main elements that led Ngororero to choose to study at Muhazi. As per Ngororero, a student must work hard to succeed. No free marks at Muhazi. In case of dissatisfaction with the marks obtained, the students concerned are allowed to complain. Ngororero intends to promote this same culture of justice in her regular work as a teacher. Consistent with what was said by Ngororero, teachers at Muhazi do not give free marks for weak students to pass as failing to meet the bare pass mark leads to exclusion from the university. They rather provide them with regular advice, whether they ask or not, to help them improve. Ngororero indicated that they receive immediate feedback marks as soon as they submit giv-

en assignments. Feedback, according to Ngororero, is a response to what you ask for or results obtained after doing an assignment.

Committed teachers and teachers who promote a conducive learning environment are role models for Ngororero but uncommitted teachers are not. Ngororero considers oral presentation of a given assignment as a useful way of preparing student teachers for teaching. However, Ngororero indicated that at Muhazi, there were no other opportunities of being prepared to teach, except internship that comes towards the end of university studies and for one month and half. Ngororero thinks that harmonization of courses across faculties of education in different universities would be helpful to ensure effective preparation of student teachers as well as their mobility in case of need.

Interview with Nyabihu

Nyabihu is a student teacher in Mpanga, a non-state university located in the city. At the time of the interview, Nyabihu was in generation Y, married and was studying at level V in the combination of economics, entrepreneurship and education. Although middle experienced in teaching, Nyabihu was no longer teaching. In Mpanga, Nyabihu studies in the holiday program as a part-time student. Due to financial problems, Nyabihu could not go to university immediately after finishing high school. Although he had several other options he could have done, Nyabihu chose to study Education both in high school and at university. The interview with Nyabihu took place in early 2019 and lasted approximately for 43min. As it was difficult for Nyabihu to move because of assigned responsibilities, the interview was conducted in his place.

Nyabihu appreciates the fact that they first get content knowledge and then pedagogical and pedagogical content knowledge. At Mpanga, internship is done twice within 21 days each time, something that Nyabihu considers helpful for the learning process to become a teacher. Nyabihu perceives the collaboration between the school and the university during internship supervision very important for student-teachers. Following advice from the university teacher during the first phase of the internship, aspects of teaching quality like good learning climate,

high cognitive activation by complex tasks and use of improvised materials are elements Nyabihu intends to improve in the second phase. As per Nyabihu, teaching practice in a school environment is missing in their training at Mpanga and it would help to achieve effective student teachers training if ever made integral part of their training without waiting only for internship.

In the classroom, students are actively involved in the teaching and learning process, said Nyabihu. On one hand, effective time use, timely provision of feedback through online portals and availability of learning facilities like libraries, enough classrooms and internet are things that Nyabihu appreciates at his university. On the other hand, Nyabihu does not like the short time available for holidays' programme, in comparison to the module content to be taught, as it leads to intensification of courses and exams. Nyabihu said that critical thinking is encouraged during exams, not memorization. He added that prior to the exams, Mpanga students are controlled to avoid any form of cheating, whether academic or financial.

According to the explanations of Nyabihu, getting marks is enough for the feedback. As said by Nyabihu, they receive electronic feedback in the form of marks. However, students who are not satisfied with received marks are allowed to complain to teachers.

Interview with Nyagatare

Nyagatare, at the time of this interview, was female student in generation Z at Nasho which is a confessional university located in an urban area. Nyagatare was doing her last year of studies in Sciences with Education as a full-time student but with a flexibility of joining part-time classes. She has been a temporary teacher for one term. Becoming a teacher was not a dream of Nyagatare, it was due to extrinsic motivation that she finally liked the teaching career. She said that a rewarding experience of a teacher who had a positive impact on her school life inspired her to become a teacher, she perceives teachers as important persons. She stressed the necessity of a code of conduct for teachers. According to her, teachers must be role models for their learners; a teacher should not

behave or dress in any way. According to her, people do teacher education because of different reasons. Some are forced, some do it because of lack of other alternatives, and others do it as their passion. The later perform better than the former who have other ambitions.

This interview took place towards the middle of 2019 in a quiet environment suggested by the interviewee, and it lasted almost 52min. The interview was interrupted towards the end of the first quarter of the time, but once the problem was solved, it continued smoothly. The interviewee was open enough to share her experiences.

Nyagatare explained that some teachers make use of social media to send to students tasks to work on for prior reflection on the subsequent lessons. She sees this system helpful as they could quickly understand the content and then go for laboratory practices afterwards. As someone who is studying sciences, he likes the combination of theory and practice in their teaching and learning process. As indicated by Nyagatare, they do both individual and group works but in the form of formative assessment. However, Nyagatare does not see the usefulness of group works as they turn at the end into individual work, being done by only one student instead of through collaboration among the group members. She thinks that it is up to the students to make group works effective, to understand the importance of transforming groups' works into learning communities.

Nyagatare says that they receive electronic feedback on assessment in form of marks. A student who is not satisfied with received marks is allowed to complain, but subject to paying a fixed forfeit as a restriction of complaints. According to what Nyagatare said, only low performing students complain and as a tentative to avoid retaking the exams. Nyagatare appreciates the provision of electronic feedback as for her; a student can have access to his / her marks without having to travel to the university campus. As she indicated, the time for providing feedback depends on the concerned teachers but none can go beyond two months so that students would be able to complain in the due time. For Nyagatare, students have a big role to play to have good feedback at the end. One cannot perform well if he / she does not attend class regularly. She referred

to the saying of Og Mandino: "Always do your best. What you plant, you will harvest later". According to Nyagatare, feedback is the answer, the marks someone gets on a given work. It is something that returns. It is the report showing parents how the children did at school.

Nyagatare indicates that they were waiting for the second phase internship to learn how to teach in practice. At university, they learn only theories because of lack of time. Nyagatare explains that at Nasho, student teachers do two internships: one in the middle of the studies and the other one towards the end of studies. Each internship lasts for three months. However, according to Nyagatare, a full-year internship would be preferable to help student teachers become familiar with the teaching career without interruption. Nyagatare expresses that when she did the internship for the first time, she could not be able to elaborate some pedagogical documents, help her learners understand the lesson. She was helped by the constructive advice she received from her teachers at university. Internships help student-teachers to train about talking in public and to develop self-confidence. The supervisor from the university visited her once but kept in touch with school for distance monitoring of student teachers in internship, to control whether they do the internship as planned. Nyagatare appreciates the fact that when they failed to find a place for internship, the university supervisor intervened, and the problem was quickly solved. But she reveals that it is not easy to do the internship in a school which rejected her application before the university supervisor intervened. This was a challenge for her during the internship period. Another challenge she experienced was about managing learners with different intellectual capacities, it was difficult to elaborate tasks allowing every learner to work on his / her level. Learning communities with student teachers from other universities were very helpful during the internship. As per Nyagatare, they could help one another to prepare well for their lessons. Besides the university supervisor and colleagues from other universities, Nyagatare said that she was also supported by the school leaders as well as the cooperating teachers.

Nyagatare aspires to be like teachers who are optimistic towards their students. However, pessimistic teachers cannot be her role models.

Interview with Nyamagabe

Nyamagabe is part of generation Y and a married man. He is a part-time student-teacher at Ihema HLI located in an urban area where he does his last year of studies in Languages with Education. Due to security reasons, Nyamagabe was forced to suspend his schooling for a certain time. With regard to professional occupation, Nyamagabe is an experienced teacher at a primary school located in a rural area. His plan is to stay in the teaching career after finishing his university study – a job he considers like a blessing to him. The interview with Nyamagabe took place in late 2017 and lasted about 01h08min. It was conducted at a business centre nearby his home. During the interview, Nyamagabe was interested and open enough to share his experience.

Nyamagabe expresses that they mostly learn through working on group assignments given by teachers, which are followed by students 'oral presentations and then a general conclusion made by the teacher. He sees this methodology helpful in promoting active participation of student teachers and peer learning which allows weak students to feel more comfortable to ask colleagues. As per Nyamagabe, the same methodology in addition to individual works is important for teachers to identify students' strengths and weaknesses. However, insufficiency of practical experiments and learning materials like books become a challenge for the effective learning of student-teachers.

As mentioned by Nyamagabe, they receive immediate feedback on oral presentations after group works and only a list of marks posted on notice board after final exams. In case of a collective problem, teachers provide support, but the students have to arrange themselves in case of individual problems. He believes that teacher educators who acknowledge students 'mistakes enhance their self-confidence, yet hierarchy is enforced on contrary situations. For him, feedback helps students make self-assessment of their learning process.

As Nyamagabe indicated, he did an internship of six months towards the end of his studies. He considered that as an opportunity to familiarize with the teaching profession, understand better-learned theories, and acquire new knowledge. He could have possibilities to converse

with cooperating teachers asking questions and gaining more clarifications on particular teaching situations. From this, he understands the importance of solicited feedback in achieving an effective teaching and learning process. Regular support from the school leaders and cooperating teachers was very helpful to him, as he said. However, a university teacher visited him only once which, as he mentioned, was not enough even though the students knew that the limitation was a heavy workload of lecturers, and scattered allocation of students to schools. According to him, routine feedback was given. He did not see any particular feedback of the university lecturer. Long distance to schools and insufficient materials are some of the challenges he encountered and which he thinks could be solved by the initiation of a demonstration school 10".

A teacher who creates a good learning environment (climate) to facilitate students 'understanding with constructive feedback is his role model in contrast to a boring teacher or a teacher who blames students by destructive feedback in case of mistakes. For him, appropriate classroom size is necessary for ensuring effective feedback to students as it is necessary for effective teaching and learning process.

Nyamagabe stressed on the necessity of practical experiments for effective learning for someone doing languages. This interview shows that students get immediate feedback from teacher educators during group works' oral presentations while after exams only lists of marks are posted on the notice board. In this case, it is up to the students to make individual reflection on their progress. What is more important, the interview indicates that a teacher educator who acknowledges students' mistakes create self-confidence whereas in the contrary situation, more hierarchy is created among students and teachers.

Interview with Nyamasheke

Nyamasheke is a student teacher at Mukamira which is a non-state university located in an urban area. At the time of this interview, Nyam-

 $^{^{10}}$ A demonstration school is a school associated to a HLI for facilitating teaching practice by student teachers.

asheke was in generation Y, married and a middle-experienced Chemistry teacher at secondary level. In accordance with what she said, teaching is a favourite job to Nyamasheke. As a holder of a Bachelor of Science in Chemistry but without education, she decided to take the Postgraduate Diploma in Education at Mukamira to gain pedagogical skills and to keep her job as well as per requirements of the Ministry of Education. To be able to combine these studies and her daily work as a teacher, she registered in a holiday program where students attend university classes only during school holidays. Nyamasheke and colleagues appreciate the opportunity of following this programme brought nearby their living place and therefore are so grateful to Mukamira. The interview with Nyamasheke lasted almost 52 minutes and took place in early 2019 in one office at the school where she teaches.

Nyamasheke mentioned that at her university they study under pressure due to intensification of courses and exams in a short period. While full time students need one month to complete one module, holidays students do the module in one week including all assignments and final exams. Because of this pressure, some students fail exams because of not having enough time to revise. In the same way, teachers struggle to meet standards of teaching quality in such situations. As it is difficult to provide individual support to students, they make use of group works but with an assessment purpose for most of time. Even though the learning situation is inauspicious, as per Nyamasheke, students who have the courage to expose their problems receive helpful feedback. As she said, teachers use different strategies to involve them in the teaching and learning process. Apart from group works, oral presentations, readings, and individual assignments are used to cover given modules in a short time yet still involving students. Big class size and the fact of struggling to cover the module content in a short term do not allow teachers to provide individual support when needed during the class. Nyamasheke expressed that this intensification of courses is at the heart of other problems affecting their learning process. According to her, these problems would be solved by provision of enough study time.

Nyamasheke understands that they study in different and difficult conditions in comparison to those student teachers following a normal program. Only quick students can adapt to this learning situation but those who fail receive no special help except being allowed to repeat the exam. As Mukamira has different campuses, they receive marks of assignment and exams through an intermediary person who helps students to get into contact with teachers in case of complaint. For feedback, Nyamasheke understands that it can take different forms and that it should be constructive to help students improve or correct themselves.

Role models to Nyamasheke are teachers who promote active participation of students, critical thinking and good learning climate not excathedra teachers and teachers who provide destructive feedback. As for her, destructive feedback leads to demotivation of students, especially weak ones. Nyamasheke mentioned that they do an internship of one month at the schools where they are teaching. The supervision is done in collaboration between the university and the school leadership. For Nyamasheke, the duration of the internship does not matter. She considers internship as a formality to be completed, in accordance with the regulations of the university, but for her, the important thing is that she continues to implement what she learns in her daily work as a teacher. Seeing how helpful the PGDE¹¹ programme is to teachers, Nyamasheke thinks that for achieving effective education, a similar special training should be prepared for people involved in school leadership or working in schools.

Interview with Nyanza

Nyanza is a married man and part of generation Y At the time of the interview, he was a student teacher at Ihema HLI, which is located in an urban setting. He was studying in level IV English – French with Education as a part-time student. During his schooling, Nyanza has had to stop schooling for two years due to the 1994 Genocide against Tutsi that

¹¹ PGDE means Postgraduate Diploma in Education. In Rwanda, this is a programme elaborated for secondary school teachers with Bachelor's degree but who were not trained as teachers during their university studies.

happened in Rwanda. Nyanza is a middle experienced primary teacher – a job that he combines with his university studies because he studies during the weekend. He sees the teaching profession as a vocation, an important profession for lifelong learning and development of self-confidence. For him, being a teacher is a multifaceted role which is not only limited to teaching. Thus, he plans to continue in the teaching career after completing his university studies.

The interview with Nyanza was conducted in late 2017 and lasted approximately 1h14min. To comply with his suggestion, it was done near his place to allow him to respond to assigned responsibilities. The interview went very smoothly, and Nyanza was very interested and open to share his experiences.

Nyanza sees taught modules enough for them to acquire both pedagogical and content related knowledge. However, language background (mother tongue) becomes a barrier for learning, teaching and using foreign languages in teaching and learning processes. For Nyanza, regular attendance in the classroom and participating in given assignments are enough for succeeding or being a better student. He takes this just like a simple formula: attend a class and then succeed. As he expresses, there is an authoritarian relationship between the teacher and students - the teacher is the authority to guide, and the student is helpless. He is not seeing himself responsible for his own learning. The meaning of teacher as a facilitator is misunderstood – the teacher has to check all the time. Various ways of assessing students are used depending on teachers, as per Nyanza. On one hand, he appreciates active participation in the learning process through oral presentation. On the other hand, the combination of two foreign languages is something difficult for him and other student teachers to manage in addition to lack of practice for developing speaking skills - recognizing a dominance of theories over practices.

According to what Nyanza says, feedback on assessment is given in the form of marks with possibility of complaining in the case when someone is not satisfied with obtained marks. With this, it becomes clear that more attention is given on marks rather than seeing exams or assessment as a source of learning through feedback. As said by Nyanza, feedback is given without delay: earlier for CATs and a little bit later for final exams. For oral presentations, students receive marks given immediately. In addition, the teacher tells students what was not done or answered correctly, how it should have been done or answered correctly. Students receive one-way feedback or imposed feedback from the teacher focused on mistakes. The aspect of constructive feedback showing what the student did well is missing within the interview. However, Nyanza understands that late feedback does not help students to prepare for subsequent assessments. Referring to his words, Nyanza understands feedback as returning copies to students, showing them their results, and then telling them what they were supposed to write or answer.

Nyanza considers oral presentation as an important way for teaching practice. With this, he indicates the necessity of reflecting on oral presentation of group works as an opportunity for training student teachers with regard to teaching practice. With regard to internship, a recap session for reminding student teachers all the requirements of the internship are organized, as he described. Internship takes 6 months where they start with observation and then teaching. He recognizes a good working environment with a close follow up by the cooperating teacher and school leaders. However, he faced various problems including low level of learners in English, lack of or insufficiency of teaching materials. The university teacher who provided deep feedback on what was done well, and what had to be improved visited him once. He sees this one visit by a university teacher as not enough and with more focus on formal aspects than acquisition of competences by student-teachers. He sees this as denying them an opportunity to get enough feedback on teaching practice due to limited teaching practices, and visits by teacher educators during internship. He then thinks frequent visits by university teachers would be more helpful to benefit from their constructive advice. Additionally, he suggests doing internships in schools nearby the university for facilitating learning communities among student-teachers. Moreover, internships should not be done once and at the end of the

studies but rather on a regular basis from the beginning. At least one month per every year of study for gaining more teaching skills.

According to his experience with regard to timely and late feedback, Nyanza plans to avoid late feedback in his teaching career and focus on providing marks. Teachers who are committed to work especially with regard to punctuality, preparation of lessons, answering students' questions, and integration in daily life are his role models. For better preparation of student-teachers, Nyanza expresses a necessity of field visits for confronting acquired theories to practices, and a seminar with highly experienced teachers to learn from their experiences.

Interview with Nyarugenge

Nyarugenge is a mother and part of generation X. At the time of interview, she was studying in the Faculty of Education at Kivu HLI, which is located in an urban area, more especially in social sciences with education, and in the last year. She revealed that she did not encounter any particular problem during her schooling period. She combines studying at Kivu with teaching in a primary school where she is an experienced teacher. Despite the fact that she has been teaching for long, she did not have any qualification in education prior to her work. She is able to do this combination because she is enrolled in the weekend program allowing her to work during the working days (from Monday to Friday) and then go to university during the weekend (from Friday evening till Sunday). Nyarugenge sees learning to become a teacher very important for her professional development. To her, commitment to work and being a good role model in the community should be part of the teachers' qualities.

The interview with her took place in middle 2017 and lasted nearly 38 min. The interview was conducted in one of the rooms at Kivu, chosen for its location away from any kind of disturbance. Nyarugenge was not very open to sharing her experiences throughout the interview time. Instead, she gave short answers while the interview revealed that she had a lot to share.

As she says, by doing a teacher education program at university, Nyarugenge is learning a lot about teaching methodology and classroom management, especially about managing learners presenting different unpleasant behaviours. From what Nyarugenge expresses, teachers teach differently with a dominance of traditional teaching. Some teachers talk and explain to students but without many details whereas others give almost full explanations along with exercises to help them understand more. Nyarugenge appreciates the way they are taught in general and working in groups with colleagues, because she feels more comfortable to ask them instead of the teacher. However, she mentions that in case students ask, a teacher's response is given unless no student asks. She does not like asking further questions to the teachers or for more clarifications. In this case, she prefers to wait and then ask colleagues. As she says, feedback on CATs and examinations is given in the form of marks either published on the notice board or shown directly to students. According to her, students get what they deserve as marks, she does not see any unfair treatment. Some teachers provide marks on CATs on time, which allows students to complain in case they are not satisfied with received marks. Thus, a culture of focusing on marks instead of seeing exams / assessment as a source of learning through feedback.

With regard to teaching practice, she sees microteaching done in the classroom with colleagues very helpful to get prepared for a teaching career, because after teaching each student receives feedback from both the teacher and colleagues. She was waiting to do an internship. A teacher who is committed to his / her work is her role model. With reference to teachers at Kivu, she aims at using transparent assessment accompanied with fair treatment of students, giving everyone what he / she deserves and an opportunity to complain to make marking of examinations copies transparent.

Interview with Nyaruguru

Nyaruguru is part of generation X. She is a mother and an experienced teacher at a rural primary school. While in secondary school, she

stopped studying for four years due to political problems. She is a student-teacher at Ihema which is a non-state HLI located in an urban area. At Ihema, Nyaruguru is enrolled in English – French with Education. To be able to combine teaching and studying, she works during the working days and then goes to university from Friday evening after work untill Sunday. During school holidays, the schedule is different where students enrolled in the weekend-program at Ihema do an intensive program to catch up for face-to-face hours.

The interview with Nyaruguru took place in late 2017 and lasted practically 49min. It was conducted at a church near her home and she was not very open to share her experiences. Nyaruguru sees teaching as her favourite career and plans to continue teaching after graduating from the university. She stressed on this choice, as at university, she could have chosen as well other domains, but teaching is her favourite job. Wishing to become a secondary school teacher, Nyaruguru associates the importance of her studies at university to the fact that classroom management strategies differ according to the period of development of the students. With this, she implicitly indicates the necessity of continuous training for teachers regardless of their high level of experiences in teaching career.

The interview with her shows that there is a possibility to ask the teachers questions in case no one in the group works understands a given topic for discussion. After group work, immediate feedback is given on oral presentation but when it comes to individual assessment, more focus is put on marks rather than considering this, for students as a learning opportunity through feedback. It is important to note that according to Nyaruguru, an effective teacher is not the teacher who delivers free marks to students but rather the teacher who puts students' learning at the center of the teaching.

Interview with Rubavu

When the interview was being done in late 2017, Rubavu was in generation Y and an experienced teacher at a primary level in one of the rural areas of Rwanda. He was married and was doing his last year of studies

in the Faculty of Education specializing in French-English with Education at Ihema, a non-state HLI located in an urban area. At secondary level, he also did teacher training but for becoming a primary teacher. He was enrolled as a part-time student specifically in the weekend-programme with a period of intensive attendance during school holidays. During the interview, he said that he has had a bad experience of repeating a class in primary school because of peer pressure. He showed no intention of changing his job after completing his university studies. He would rather like to continue in the teaching career but looking for a promotion at secondary level.

The interview with Rubavu took almost 46min. During the interview, there were disturbances due to lack of sound insulation, but this did not stop us from continuing the discussion. According to Rubavu, working in groups is suitable for assignments while for teaching, teachers should do it. He considers teachers establishing a good learning climate and using teacher-centred methods as his role models. He showed that from his experiences, students feel more comfortable to ask colleagues rather than the teacher.

Rubavu indicates that marks are sometimes provided later because of big class sizes and teachers' high workload but sees the marks alone not enough for feedback. Teachers should provide specific feedback to students i.e. not only crossing false answers. He emphasized on the need of individual feedback as most of the time teachers prefer to provide collective feedback in such cases. This goes in the same way as the understanding of Rubavu regarding feedback teachers should discuss with students not only about the given assessment but also provide a room for evaluating together the completed lesson. He relates this to the fact that a good student should always be curious about knowing more. He appreciates the positive treatment of teachers while they ask for feedback

Even though he did teacher training at secondary level, he sees doing internships important for student-teachers. Since part-time student teachers face difficulties of matching the internship period with their regular work, Rubavu thinks that more emphasis should be put on the

quality of internship rather on its length. He additionally raised the necessity of restructuring the programme of part-time student teachers for its effectiveness at the end.

Interview with Ruhango

Ruhango is a student-teacher at Ihema in level IV for languages. Ihema is non-state university located in an urban area. Ruhango combines her studies with teaching in a secondary school and being a mother. At the time of the interview, she was in generation X and was an experienced teacher at secondary school level. With this, she works during the working days and then studies during the weekend in addition to doing intensive study periods during school holidays to catch up for face-to-face hours. During the war and 1994 Genocide against Tutsi in Rwanda, she stopped studying for a certain period and then returned to school afterwards. The interview with Ruhango took place in late 2017 and lasted about 43min. To avoid disturbing some of her family duties, the interview was conducted at her home upon her request, which I accepted. She was not very open but shared important experiences relevant to this study.

Ruhango sees being a teacher as means for lifelong learning and staying strong for a long time. Because of this, her aim is to continue teaching after graduating from university. For Ruhango, it would be better if those in the teaching career like their job and not teaching because of missing other career opportunities.

According to Ruhango, the culture of only publishing marks by posting related lists on the noticeboard is unhelpful for reflecting on the feedforward. Besides, the interview with Ruhango shows that teacher educators need to reflect on oral presentations of group works to use them as an opportunity for formative teaching practice. It is moreover indicated that internships should not only have an assessment character but rather enough supervision by university teachers to give student teachers many opportunities for improvement through feedback.

Interview with Rulindo

Rulindo is a young man in generation Z and was still single when this interview was done. He was in his last year of studies in social sciences at Kivumba, located in a rural area, as a full-time student. However, he delayed starting university studies because of financial problems. He has not yet been a teacher, but he sees teaching as a career he likes, and he wants to follow since he was a child. Teaching is also important for lifelong learning, but also as a challenging job requiring dedication, as Rulindo said. The interview with Rulindo was conducted in mi-2019 and lasted approximately for 50min. It took place in the campus of Kivumba, where Rulindo showed interest in participating in this research, as he was open enough to share his experiences.

As mentioned by Rulindo, mixed methods where teachers first explain and then allow discussion on a given topic are used. In addition, students work in groups on a given task, followed by oral presentations. He appreciates the fact that small class size at Kivumba allows interaction between the teacher and students. However, learning materials that are not sufficient, in her opinion, constitute an obstacle to an effective learning process. According to Rulindo, they receive immediate oral feedback after oral presentations of group assignments, direct electronic feedback on the part of exam / assessment with closed question, but they have to wait for the marks of the other part with essay questions, which are manually corrected by teachers. Financial clearance is required for students to see their marks through the university online system and in case they are not satisfied with received marks, a fixed amount of money has to be paid first for students to have access to their examination booklet for complaining. However, Rulindo understands the importance of timely feedback, which otherwise leads to a decline in encouragement.

Rulindo sees oral presentation as an opportunity for teaching practice and in addition, appreciates what and how they learn the module related to microteaching. At Kivumba, they do two internships of three and six months respectively. The first one takes place in the middle and the second at the end of their studies. He experienced close follow up by the cooperating teachers and different visits by either the university lec-

turers or school leaders, which are for evaluation purpose. For him, the two internships are very helpful for student teachers to acquire professional competences. His role model is the teacher who establishes a good learning climate along with showing good mastery of the subject knowledge and allowing students spaces for asking questions and he understands that not every teacher can be a role model. Rulindo believes that transparency is necessary to ensure the recruitment of effective teachers.

Interview with Rusizi

Rusizi is a full-time student teacher at Rweru in level V: English-DRAMA with Education. Rweru is a state-university located in a rural area. At the time of interview with Rusizi, he was in generation Z, single and had no experience in teaching except an internship of six months; he was doing at a vocational training centre. He learned pedagogical courses for the first time at university and this required him some effort as he said. In the internship, he was very happy to put in practice teaching theory learned at university. He said that he was afraid at the beginning but the fear disappeared with time due to the help from different people including cooperating teachers and supervisor from the university. In his secondary educational background, Rusizi was not good at English in ordinary level. His dream was to become a pilot. At advanced level, Rusizi was oriented to languages and then failed to fulfil his dream of becoming a pilot. A good English teacher he met at that school helped him. From this teacher, Rusizi changed his vision and then decided to do education at university to be able to bridge some pedagogical skills gap he had realized in the teaching of this teacher, as he did not specialize in education. Rusizi emphasizes this by saying that teaching is his professional career. As agreed on with Rusizi, this interview took place in recreational garden and lasted roughly 56min. It was conducted in late 2018.

Rusizi did an internship combined with action research. The same teacher supervises both the internship and the action research. The focus for the first visit of the university supervisor was to provide formative feedback, something that was helpful as expressed by Rusizi and the second visit was done for giving marks to student-teachers. To follow up and ensure the effectiveness of the internship, Rusizi received daily assistance from a school-based mentor and was visited twice by the supervisor from the university. As he was teaching a class of slow learners, Rusizi was advised by the school-based mentor to create a good learning climate as one of the strategies to motivate and engage those learners in the teaching and learning process. As he mentioned during the interview, Rusizi was treated as a colleague by other teachers. Shared experiences from other teachers helped him to feel more comfortable during internship. Because of living constraints shared with a number of classmates, Rusizi prefers to start an internship one term earlier, as it was before at his university, so as to have enough time to concentrate on the action research after completing the internship instead of running both in parallel. According to Rusizi, sometimes the effectiveness of the internship is undermined by the fact that students are sometimes assigned to schools far from home despite the financial constraints they face. Rusizi realized that in most cases, mentors give feedback to students who always knock on the doors of their offices asking for help. He thinks this is related to the fact that mentors receive no salary from the university. Rusizi recognizes the importance of the internship in teacher preparation. However, he regrets that they did not do any teaching practice at university before the internship takes place. They only did oral presentations of assignments that were most of the time aimed at obtaining marks. Rusizi does not appreciate the fact that language didactics are taught by unqualified teachers in this field which according to Rusizi, does not help student-teachers.

In the future teaching career of Rusizi, university professors who paid attention to the good learning climate, respect of time, deep learning and learning community are his role models. With this, Rusizi emphasizes that he understood the necessity of active participation of students for an effective learning process. Teachers who are not committed and transparent when it comes to marking are not role models of Rusizi. As said by Rusizi, he understands feedback as a reaction of students to

what the teacher does in the classroom, a reaction which can be direct or indirect, good or bad. In this case, as per Rusizi, self-feedback is better as it helps the teacher to correct him/herself before students react. In line with what Rusizi said, students seek feedback only when they are not satisfied with obtained marks. At university, Rusizi does not like the way some teachers do not promote reflective learning rather rote learning especially when it comes to examination.

Interview with Rutsiro

Rutsiro, at the time of this interview, was a mother in the middle of generation Y. She was doing the last year of her studies at Kivumba HLI, a state institution, as a full-time student in Social Science with Education. Rutsiro said that she had had some social problems, when she was at the lower level of secondary school, that obliged her to stop the schooling for two years. Rutsiro has not been a teacher before but according to what she said, she is proud of learning to become a teacher. She is aware of how important teachers are to society and human development. She considers education as the cornerstone of everything and for these reasons she plans to continue in the teaching career if opportunity arises. The interview with Rutsiro took place in the middle of 2019 and lasted about 41min. Kivumba HLI being located in a rural area not very practical for bus transportation, I decided to meet Rutsiro there and the interview was done on the campus. When contacted, Rutsiro showed interest in this research and for the interview. Even though her answers were short, they are helpful to answer my research questions.

Rutsiro mentioned that teachers use mixed methods, first lecture methods to introduce a new lesson and then group works for students to work on a given assignment. In accordance with what she said, a culture of the learning community fostered by teachers promotes active participation of students when working on a given assignment. She appreciates the fact that teachers try to connect the content to everyday life of students. She shows appreciation also towards the use of modern technology in assessment and communication with students and more especially the fact that this modern technology helps to have access to read-

ing materials missing or insufficient in the library. However, Rutsiro pointed out the problem of insufficiency of learning facilities and lack of necessary materials for conducting teaching practice at university. For her, a sample of the teacher's pedagogical documents like class diary, scheme of works, etc. should be available at the University for student teachers use. In addition to this, she wishes to be taught by professional teachers, specialized enough in the subject they are teaching.

With regard to feedback, Rutsiro indicated that after oral presentation of group works, they get direct feedback where teachers tell them what is missing in their works and commit mistakes. As they do the exam via an electronic learning system, Rutsiro disclosed that they get immediate feedback in the form of marks on the first part of the exam with closed questions. She appreciates this and sees it very helpful for teachers, as they at the end have to mark the other part of the exam with open questions. Feedback on this part is given later also in the form of marks. For Rutsiro, the immediate electronic feedback is helpful because a student can predict whether he / she will pass or fail the exam and then start preparing for the retake. When asked to tell the meaning of feedback, Rutsiro showed an understanding of feedback limited to marks. According to her, feedback can be good or bad but in relation to results not according to how it is given. If someone succeeds, it is good feedback and if the person fails then it is bad feedback. She understands that collaboration among teachers is needed for students to succeed.

As per Rutsiro, they get opportunity for simulated micro teaching at university. Oral feedback from the teacher after microteaching helps them to know what to correct especially regarding how a teacher should behave in the classroom. Besides this, two internships are to be done by student teachers learning at Kivumba, the first internship for two months and the second internship for six months. Rustiro sees this very helpful because she could learn well for instance how to teach, deal with differ kinds of learners and prepare pedagogical documents. She said that with the first internship, she was still shy and was fearing to stand in front of the learners. However, towards the end of this first internship, she felt prepared for the second internship. According to Rutsiro,

two internships helped her experience teaching in the two levels of secondary school. In the internship, she was visited by a university teacher who came, observed how she was teaching and then gave her marks accompanied with observations, at the end of the lesson, on things that were not well done. A teacher who promotes active participation of students through encouraging reading culture among students and the complementarity between individual and group works is a role model to Rutsiro.

Interview with Rwamagana

Rwamagana is a married man and at the time of interview with him, he was at the beginning of generation Y. He was doing the last year of his studies at Mpanga, a non-state university located in the city, as a part-time student in Sciences with Education. Rwamagana indicated that he would have liked to continue university studies just after high school, but this was not possible because of the educational policies of the time, especially with regard to people who were trained to become primary teachers. Rwamagana, a primary teacher with advanced experience, is aware that the teacher's salary is still low, but does not consider this as a concern. Teaching is his favourite job, a career where he feels more secure. This interview with Rwamagana took place in early beginning of 2019 and lasted practically 01 hour 03 minutes in a place chosen by the interviewee. During the interview, Rwamagana was open and feeling comfortable to share his experiences with me.

Even though Rwamagana attends the university only during students holidays he seems to be satisfied by the way they study. He indicated that on holidays students do the same exams as other students and are taught by the same teachers. Modules to be covered are structured into different sessions where one session has to be done per school holiday and it starts with exams of the previous one. As indicated by Rwamagana, teachers involve students via either group or individual works with the purpose of assigning marks at the end.

Rwamagana appreciates the availability of modern learning facilities, like computer laboratories, which allow them to conduct internet search.

Besides this, he likes to share ideas with colleagues through group works and the fact that they get related feedback in form of marks immediately via the online portal, a modern technology. They access it via the university website not only for seeing their marks but also any communication with the university including having online access to reading materials. However, he does not appreciate the fact that they receive feedback only in the form of marks. Referring to his own experiences in other universities, he wonders whether students have no right to consult their marked examination papers, something he thinks that would help students for self-feedback, know how someone has done and he / she would have done better. Rwamagana also highlighted the shortage of laboratory experiments, especially for sciences students, an area that needs to be improved as per him. More on the feedback, Rwamagana understands it first as a component of the communication process and, then in education, like the marks a student obtains on a given exam.

Rwamagana sees oral presentations they do after group work helpful to get familiar with teaching. Besides this, they get opportunity to do teaching practices in the form of simulated microteaching with classmates after which they receive feedback from teachers indicating areas to be improved. As mentioned by Rwamagana, they do an internship of one month in two rounds but after paying an obligatory amount to get an authorization letter as well as required pedagogical documents. In the internship, they get close support from the cooperating teachers and are visited by university supervisors. As said by Rwamagana, these supervisors could give, at every visit, marks and some advice where improvements were needed. The given marks had to be seen later on the online portal. Rwamagana sees internships helpful for preparing student teachers to the teaching job but suggests the internship duration to be extended to three months. However, he does not see any difference whether the internship is done in two rounds or one, if at the end the total duration is the same.

A role model to Rwamagana is a teacher who does not use modern technology like a projector but explains everything on the chalkboard with concrete examples. During revision, he can easily use the syllabus given by the teacher and understand it. On the contrary, a teacher who uses modern technology such as a projector to give a summary and leave an assignment to be worked on by students, cannot be a role model for Rwamagana. He struggles to understand the course of this teacher.

Summary of portraits

The portraits above describe the profile of interviewed student teachers starting with their personal characteristics, conditions in which the interviews where done, and their understanding regarding the topic of this study. According to these portraits, all the interviewed student teachers are exposed to feedback in one way or the other. Their experiences are related to the teaching and learning processes in the classroom, assessment, and teaching practice especially during internship as according to the shared experiences, microteaching is not a common practice in all HLIs. It appears from these interviews that they have positive experiences, but also face challenges which they wish to be improved for effective training. As illustrated in the portraits, feedback experiences expose the interviewed student teachers to different learning situation, both as students and future teachers. These experiences have been analysed in more details, and the corresponding findings are presented in the next sections (see 4.2 and 4.3 below and as a summary (see chapters 4.4 and 5.1).

4.2 Description of the field

As indicated in chapter 3.4, the analysis of data in this study has been done by qualitative content analysis. An intertwined deductive–inductive approach (see 3.4.2) has been used for analysing interviews. The coding of all interviews has been done following this approach. For quality control, both intra-coding and inter-coding¹² were used. With abduction

¹² I am grateful to my interpretation group, namely Abraham Tangwe Tamukum, Claude Ernest Njoya, Emmanuel Niyibizi, Eraste Kakule Jumapili Bulaya, Etienne Uwajyiwabo, Frederick Njobati Fondzenyuy, Jean Kasereka Lutswamba, Semerita Kavira Kamundu, Onja Tiana Raharijaona, and Dr. Susanne Timm., who assisted in this process.

process, criteria for defining types have been identified. This process was done via a deep analysis of a number of materials such as interview transcripts, the coding system, portraits and the sampling table. The proceeding included the comparison of the quotations from different interviews in relation to a given code, what has been accomplished by using MAXQDA. As described in the following paragraph, criteria for the comparisons emerged during multifaceted analysing process by the data. At the end of the process, three types had been identified.

In line with interviews, it was realized that while describing their experiences with regard to feedback, student teachers referred to the purpose for which the feedback was given and its content. In line with the example below, it was observed that feedback is communicated to student teachers in different ways:

"We receive them in different ways depending on the teacher (humm). There is a teacher who may mark them immediately and gives you marks (humm). There is another teacher, when publishing the one of final exam, who put them in columns and say 'this is for the assignment (humm) and this is for the final exam' so they publish them differently due to some factors. There is a teacher who may get time (humm) immediately, even after one hour (humm) he/she may finish the assignments and send the marks to the website or to our emails (humm) and then finish. There is another one who publishes them all together with those ones of final exam though it is forbidden (humm) because a student should do final exam after knowing his position in assignment to know where to start preparing for final exam (humm) because sometimes one can say' if I have 45 I have to study hard (humm) if another one has 50 I may study but not too much. (humm) so, it depends mainly on the methodology of a teacher." (Bugesera: 78–90)

Comparing quotations similar to the statement above, it was realized that feedback experienced by student teachers differ depending on when, how and who communicate the feedback. Thus, a criterion of communication with sub-criteria: time, orientation / channel, and provider / source was noted down. In addition, interviewed student teachers talked about the role played by student teachers and teacher educators in the process of feedback, as well conditions under which the feedback is given. Following statements like the one below:

"... feedback is a consequence which can be defined as something that returns in a positive way (huuum) this means that if I presents a certain question and don't get the answers from the teacher (huuum) if he/she does not give me the consequence or do anything in return (huuum) if he/she cannot give me power to listen to him / her and then answer me, he/she is not providing what I expected to get from him / her (huuum) so the feedback, in Kinyarwanda, can be explained as the answer to the question or anything that you might have asked depending on the questions you have (huuum) and then you get the answer which is the feedback (huuum) from what you have asked". (Burera: 214–219) "

While analysing interviews, it also becomes visible that student teachers talked about who are playing roles in the process of giving and receiving feedback. It emerged from interviews segments that student teachers, and teachers intervene differently depending on how the feedback is given. An illustrative segment is for instance the following:

"... in general when there is something you don't understand, you consult the teacher in class, because the class ends late, (huuum), you cannot get time to come back and consult the teacher, and he/she is also busy preparing the course of the next day (huuum), in most cases we ask them when we are is class. When they enter the classroom, if you have something you did not understand, you approach him/her or you call him/her and say that you have something you did not understand and you ask the explanation (huuum) before starting the lesson or when you get time you tell him/her he/she comes (huuum) he/she explains and help you understand. But after class, I think there is no ..., may be because we are coming from different areas, it is normally evening and we are also rushing to do given activities, facilitation is not possible due to time (huuum). But when we come back in the classroom, we call him/her and he/she explains to us what we have not understood well." (Gakenke: 97–108).

Requirement to receive feedback was another criteria identified from experiences shared by interviewed student teachers. These are defined like conditions for asking or receiving feedback. An example from interviews is the following:

"... when they publish the points you may feel like misunderstand it and feel not satisfied or not doing what in that case you look for the lecturer then he/she shows you your copy and you check it well you talk with him/her about where you have a problem and he/she shows you the true answers of course ..." (Nyarugenge: 147–150).

It was also observed that during interviews, student teachers talked about their opinion and understanding about feedback. From this, a criterion named student teachers' positions with two sub-criteria: feeling and conception was added. An example from interviews is the following:

"... if I ask you two or three times and answer me in that way (uuuhm) I just keep quite (uuuhm) I don't ask you any more throughout the whole lesson (uuuhm) so there was someone who who was like that, he/she could insult you when you asked him/her (uuuhm) and tell you, don't you know that ... he/she could laugh at you in case of the spelling mistakes (uuuhm) he/she could correct you basing mainly on how you said more than what you said (uuuhm) to correct it, he/she could blame you (aaah) (uuuhm) it is not good, I have seen that it makes people demotivated ..." (Nyamasheke: 375–382)

The list of criteria, sub-criteria as well as types drawn from the process of abduction is provided in the table below.

Table 2: Typology of feedback based on the experiences of student teachers

Types		Type 1	Type 2	Type 3
Criteria	Sub-criteria			
Aim	Purpose			
	Content			
Communication	Time			
	Orientation and			
	channel			
	Provider/Source			
Role	Student teachers			
	Teacher educa-			
	tors			
Requirement				
Students Teach-	Feeling			
ers positions	Conception			

Source: Primary data, 2019

After the list of criteria was stabilized, the next step has been to identify the typology emerging from the data. As a result and guided by the research question of this study: "How does teacher education look like regarding feedback in the Rwandan context?", three types of feedback were identified by comparing the use and notion of the different types (see chapter 4.3 below).

4.3 Description of types of feedback

In the next sections, the types of feedback experienced by student teachers in Rwandan HLIs are described. These types were identified through the process of abduction. This was done by a deep analysis of the empirical data whereby segments of interviews illustrating the same criteria (see chapter 4.2 and table 3 above) were compared to analyse the similarities and differences. With this comparison, the three ideal types emerged. In the next sections, administrative feedback is first described (see 4.3.1), followed by correctional feedback (see 4.3.2), and then instructional feedback (see 4.3.3). Each type is described according to the different criteria (see 4.2 above), and more especially using first one illustrative citation chosen from interviews and supporting this direct citation with paraphrases of other interviews.

4.3.1 First type: Administrative feedback

As indicated above administrative feedback is one of the types of feedback experienced by student teachers being trained in Rwandan HLI. Using the qualities from the field, the understanding of the administrative feedback that emerge from the research materials and by abduction is described.

Criteria 1: Aim of administrative feedback

It emerges from segments of interviews that student teachers when talking about their experiences on feedback, they declare that the purpose is administrative in nature and connection to communication of grades.

Communication of grades

In line with interviews, the focus of administrative feedback is put on communication of grades received by student teachers from given assessment.

"Normally the list of the marks is what they give but for us we wish we would be shown our answer sheets" (Nyaruguru: 220–221).

From the statement, it appears that assessment feedback given to student teachers consist of marks. This was emphasized by other interviewees who said that after assignment, and or exams, they are shown marks. These marks are either given to student teachers directly in the classroom or displayed either on the notice board or online portal for them to go and check how they performed (Kamonyi: 76–80; Nyagatare: 365–371; Bugesera: 44–48; Karongi: 104–107; Nyamagabe: 148–159).

Fulfilment of evaluation report and administrative formalities

In the interviews, student teachers mentioned fulfilment of administrative formalities as one of the purposes of administrative feedback. Below is an example of what was shared:

"For us when the marks delay we just complain but the academic year and the courses cannot finish without getting our marks (eeh) because the time comes when they totalize the marks so as to do deliberation for those who are going to be promoted or to repeat "(Nyaruguru: 184–187).

Here, Nyaruguru indicated that even though, publications of marks could take long time they knew that at the end of the day it had to be done for student teachers to know the deliberation's decisions. The same experience was shared by Karongi who said that marks were published for student teachers to know which modules they have succeeded and which ones they have failed (111–113). As far as teaching practice is concerned, it appears from the interviews that it was carried out mainly for the accomplishment of academic formalities that is to say for the attribution or reception of marks. Rubavu said, for example, that he had to do a six-month internship, but he stopped it after four months. As he said, he saw no reason to continue the internship until the end, as he had already

received the marks (Rubavu: 321–329). This is in line with Muhanga who pointed out that during internship, student teachers focus more on getting marks than other things (142–146).

Financial clearance

In accordance with interviews, student teachers mentioned that communication of marks was sometimes used for financial clearance. The statement below is one of the examples:

"Another good thing is that we have what we call student portal they use. We don't get these marks from the teachers, but they put them on the portal and then you can access them from everywhere you are, if you have paid your school fees you can see it on your portal" (Nyabihu: 203–206).

As per Nyabihu, they received marks via the university online portal but as he said only marks of student teachers who had paid tuition fees were uploaded. Rulindo appreciates the fact that with the use of technology, marks are published without delay, and they can see the marks wherever they are. However, he added that only student teachers who had no financial case could sit for exams and see their marks (246–257). For other student teachers, feedback was perceived as an information for student teachers to start looking for money to pay for retaking failed modules (Karongi: 111–114; Rutsiro: 161–173).

Publication of marks most of the time as cumulative marks

As far as administrative feedback is concerned, it appears from interviews that publication of marks was done together either at the end of a module, or an academic year. This is illustrated in the statement below:

"After the assessment when that unit is over and when another unit is finished they make the total of all marks of the module (eeh) they finish and publish them all the total of the module they give the total of the whole module (hmm) then after a certain period in fact you take one module and finish it (hmm) at the end of it you have an exam then you take another one then at the end of it after one year all the modules will have been finished and then they totalize the courses (hmm) they calculate it out of 20 (hmm hmm) (2 seconds) for the person who paid regularly there is no problem" (Nyaruguru: 167–174).

Nyaruguru reported that for the assessments, they know their marks later, and together as a total for all modules. A similar experience was also shared by other student teachers (Kanombe: 103–105; Muhanga: 482–485). In this same line, Kigali said that except for assignment, other marks for continuous assessments were displayed by the department on the noticeboard together with the final exams' marks. Yet, as she said, they were curious to regularly know how their learning progress (160–165). Bugesera said that for his university accumulated feedback was forbidden, but this would not avoid some teacher educators to publish the marks for formative and summative assessments together (84–90). However, Kanombe indicated that accumulated feedback was provided in addition to module-related feedback (107–110).

Criteria 2: Communication of administrative feedback

As per interviewees, this criterion is described in terms of when the feedback is given (time), how is it given (orientation and channel of communication), and who gives the feedback.

Delayed feedback

In line with what interviewees said, administrative feedback is in most cases given with delay, and in this case, student teachers receive marks only. One interviewee expressed for instance:

"We also have assignment or homework (huuum). For the homework they take them and mark them and then they ... they send us or bring the results later or marks that we got in homework (huuum) that is how they they give us the feedback (huuum) but the challenges I realized is that marking may take long time (huuum) and the feedback may delay (huuum) that is the challenge I saw that is likely to be at university" (Burera: 117–122).

From the example above, student teachers would expect to get quick feedback on the homework but they still have to wait for long time. In addition to Burera, other student teachers shared the same experience that they do not appreciate:

"... what I do not appreciate is how marks of work or CAT (continuous assessment test) we do we see that they are not provided to see them we have to wait for them to be posted ... "(Gasabo: 32–34)

As interviewees said, it happens for them to do a number of tasks, but the problem they face is that the corresponding feedback is not given on time. Rather, they have to wait for the marks to be published. Some teacher educators correct the given assignments and keep the marks until student teachers sit for final exams without knowing how they did. They sometimes receive these marks when it is too late to complain if their copies got missing or when they are not satisfied with given marks. Student teachers see delayed feedback as a culture being constructed by some teacher educators. As they said, they are unhappy about this situation, and do not support such a culture (Gasabo: 61-70; Rwamagana: 112-113). Student teachers experience the same feedback when it comes to final exams. Marks are published when they have already left the universities for holidays. They receive feedback in the form of marks for both the formative and summative assessment. They are the marks which inform them whether they passed or failed. According to them, it would be better if they could get feedback as soon as possible. They consider immediate feedback as a source of motivation for subsequent exams. Besides, they wish to have access to their examination papers for them to check how they have done the exams and how they have been marked (Gisagara: 182-192 & 250-253; Nyaruguru: 256-259). Student teachers know that it is their right to get marks on time, and this in consistency with the academic regulations. However, this regulation is respected sometimes in case of group assignment as teacher educators correct few papers and have to wait in the case of individual assignment (Gatsibo: 210-214; Kamonyi: 110-117).

Immediate feedback only on grades not on feedforward

In complementary to the section above, student teachers indicated that in case feedback is given without delay, only marks are communicated. One interviewee said for example:

"I can tell you that it does not take a long time like the last exams we did in this month of May we have already seen marks for some we have already seen the marks you see that that it does not take a long time it was like three weeks after the exams but however when they finish to correct they show us the marks" (Nyarugenge: 125–128.)

Another student teacher said that immediate communication of results helps him do next exams knowing how he did in the previous ones (Nyabihu: 256–259). The fact that some teachers correct the papers, and quickly show the results to student teachers was something that was appreciated during the interviews. They see this feedback important for their learning process (Nyarugenge: 125–128; Rwamagana: 333–339). However, student teachers, as they expressed, in such cases only marks are communicated so that they can appeal in case of dissatisfaction, and not for using the feedback as a learning opportunity. Such teacher educators want only to check whether student teachers agree with their marking system (Ngororero: 102–110 & 114–120). Quick feedback is also given in the case of online exams where once the time of the exam is over, they are directly marked by the system:

"... will go there at eight then the exam will be available, you open and you do it, the exam close itself and you get out knowing your results (uuuhmn) this is also the integration of technology in our learning processes (uuuhmn) this also helps us in our education" (Rulindo: 54–56).

Lack of common standards

In terms of administrative feedback, it appears from interviews that the way teacher educators provide feedback to student teachers does not follow a shared standard, and especially when it comes to the moment when the feedback should be given. In this regard, one interviewee said:

"He marks (uuhuum) it depends on the teacher because there may be a teacher who can keep them for six months (uuhuum) there is another teacher who may mark them quickly and give them after one month" (Kayonza: 434–436).

In addition to the example above, other student teachers revealed also that some teacher educators provide marks on time, whereas for other teacher educators, they have to wait for long time. Even though regulations about when the feedback has to be communicated exist, this does not prevent some teacher educators to delay it, and sometimes for long time. These regulations are often not respected. For student teachers, teacher educators are the ones who decide whether feedback is to be giv-

en on time or not (Gatsibo: 210–213; Kigali: 178–183; Nyaruguru: 177–181; Ruhango: 171–172)

Limited timeframe for complaints

As per interviews, once marks are communicated, the next step is to complain in case a student teacher is not satisfied with obtained marks. However, marks are sometimes communicated with delay, so it becomes difficult for the student teachers to meet the fixed deadline for complain:

"The reasons behind being unhappy of CAT results there is a culture of doing many practical works in class and among those the teacher goes and select some activities (hmm) and then mark them or mark all of them but then we do not get the feedback on the respective works done and even though the marks are recorded on the list we don't see the results and we sit for final exams without knowing how we performed in those assignments whether we passed or failed and sometimes our scripts got missing after the exams one could find the marks from CAT are missing yet he/she did it or finds out that he/she gets few marks in comparison to what he/she expected yet this would have been solved before and most of the times it is done very late sometimes when it is no longer possible to complain for CAT results "(Gasabo: 61–70).

As indicated by interviewees, time for appealing differ from one institution to the other. Student teachers are asked to respect this period, otherwise their appeal cannot be accepted. In such cases, student teachers are not satisfied with given marks, or did not appear on the list of marks yet they sat for the exam (Gatsibo: 198–200; Muhanga: 485–490 & 497–517; Nyagatare: 365–371)

Use of formal communication channels

From interviews, administrative feedback is communicated to student teachers via formal structures established by the institutions. One interviewee said for example:

"There is a teacher who may get time (humm) immediately, even after one hour (humm) he/she may finish the assignments and send the marks to the website or to our emails (humm) and then finish" (Bugesera: 82–84).

Interviews show that teacher educators use universities' online portal, emails, notice board, etc. to communicate grades to individual students or using list of students (Gasabo: 32-34; Rubavu: 200-205; Rwamagana: 85–91). It appears from interviews that some student teachers appreciate the use of online platform / channel to communicate their grades because they are kept confidential, and they can check them wherever they are without having to travel to the university to check to the notice board (Gatsibo: 203-206; Nyagatare: 346-360). In some universities, students do online exams where after finishing, they directly see their marks. In this case, closed questions are used (Rullindo: 198-203; Rutsiro: 137-145). It seems that teacher educators expect student teachers to be informed about their learning progress by given marks. However, student teachers see this unhelpful as it avoids, in most cases, face-to-face contact with the teacher educators. As they said, with posted marks, they can only check the marks, which cannot inform them about their weaknesses as well as needed improvement (Karongi: 104-107, Ruhango: 151-160). Even though not appreciated by student teachers, it appears from interviews that posting list marks becomes generally used. However, student teachers, as they mentioned, would wish to be shown examination papers and talk to the teacher educators (Gasabo: 32-34; Kicukiro: 240-253; Nyaruguru: 220-221).

Teacher educators as providers of administrative feedback

As per interviews, administrative feedback is mainly provided by teacher educators.

"That is where I see the problem because a person is asked and he/she is given an examination booklet and he/she writes what he/she knows (hmm) but as usual they [teacher educators] come and put the marks to the notice board but they don't give us our examination booklet so that we can check the questions we have failed we should see our booklet and say we should answer in this way but they don't bring back the examination booklets so us to see where you had strength and weakness and improve (hmm) they don't bring back the booklets and that is the problem I found (hmm) you cannot know the reality except when you see the booklet and see the details but the way they show us marks cannot help to evaluate yourself and improve (hmm) because you cannot see how you wrote and what you wrote" (Ruhango: 151–160).

In line with the example above, even though they would wish to get a detailed feedback, teacher educators communicate only the marks, and this via a list of marks displayed on the notice board. Other student teachers shared the same experience in the respective interviews that their marks are communicated by teacher educators (Karongi: 111–114, Rutsiro: 161–173).

Provision of feedback by administration

According to interviews, students' results are sometimes communicated not by teacher educators, rather by the administration:

"The way we get to know our results is that when they finish marking they make a list of all students according to the marks of each student (hmm) after they hand the lists to the heads of departments who afterwards go and post them on the notice board where we all see and everyone is able to see his/her results." (Nyamagabe: 132–135)

In addition to the statement above, teacher educators hand the list of marks to academic hierarchy who then post the list on the notice board (Kigali: 160–163).

Criteria 3: Role of student teachers and teacher educators regarding provision of administrative feedback

From the interviews, some student teachers play active role like using received marks to reflect on their learning and complaining about received marks, whereas others seem to be passive. On the teacher educators' side, student teachers see their role as limited to displaying marks, checking their papers in case of complaints and as the persons who make decision on their learning progress.

Student teachers as passive partner in the process of feedback provision

According to what student teachers reported during interviews, it seems that teacher educators do not involve them in the process of feedback. One interview said for instance:

"They [teacher educators] bring it back, the process here, they bring them back (huum), then we classify them, but at that time, the teachers (huum), they are the ones to decide when those who are not competent (huum) are going to repeat. They are the ones to decide (huum), he/she will tell you; you were not competent in this course (huum), you have to repeat (huum), you have to redo it." (Gicumbi: 137–141)

In line with the statement above, Gicumbi experienced a one–way communication of feedback, getting information only from the teacher educators.

Use of self-feedback

It appears from interviews that some student teachers, when shown their results, make use of this information to reflect on their own learning:

"... actually when they publish the marks they are the marks which show you what you did (hmm) this is to mean that marks show you your results and the proportion of what you did (hmm) where it is that percentage is where as students you start to ask ourselves that the results show that we understood or did not understand the lesson (hmm) from then we take measures and say that if we found positive results it is good and it creates confidence in us and help us (hmm) to study even the next lessons with more motivation (hmm) so when it is obvious that the results are low it shows us that we need to do something else about it to increase our results (hmm) it is understandable that we go back to revise even those that we didn't do well (hmm) in order to continue while having some knowledge (hmm) that happens when they publish the marks and the lessons we did in exams to match and it is good as it shows us our areas that need improvement in the lessons we are taking." (Nyamagabe: 148–159)

In addition to Nyamagabe, other students reported that when their results are published, they do not only look at their results, rather, they try to see if there is something else, they can learn from these results in regard to their learning progress. When someone realized that he/she failed, he/she understands that more effort is needed for improving his / her performance and motivating in case of high achievement. They use this information to analyse their strengths and weaknesses and take measures for preparing well subsequent tests in order to avoid an additional failure (Gasabo: 75–75 & 96–106; Gakenke: 262–271; Kamonyi:

122–128). Some student teachers even check again the questionnaire in parallel with the handouts to try to find out the reasons behind received such results. However, it is sometimes difficult for student teachers to identify the causes of their failures. They assume that in case they would get descriptive feedback from the teacher, this would help them avoid making similar mistakes (Nyamagabe: 108–112; Ruhango: 177–188).

Complaint in case of dissatisfaction with received marks

Student teachers are sometimes not happy with how their examination papers have been marked or with the received marks. As per interviews, they make complaints, and in most cases not for learning purpose, but for checking whether their marks can be increased:

"The course ... all the courses I have done, after marking they bring the marks and put them in the other system and when I log in I shall see my results. I will see them and say 'in this course I have got this'. This may allow me to say 'I doubt, may be the marks that were given are not fair'", then I shall decide to contact my teacher for complaints. You can even miss the marks of that course and you can inquire the reason for that". (Nyabihu: 250–255)

According to other interviewees, student teachers who have doubts on their marks contact concerned teachers for verifying their examination copies. Some understand that teachers cannot give them free marks rather what they deserve, but they still feel better once they check whether no mistake has been made in marking their copies or adding up the marks. As result of the complaints, student teachers hope to get more marks at the end (Kirehe: 202–207; Kicukiro: 280–288; Nyabihu: 50–57; Nyarugenge: 145–152; Ngororero: 102–110; Rwamagana: 288–303). As administrative feedback is given, in most of the cases, in the form of marks, student teachers see this unhelpful and then make use of appealing to receive additional feedback (Gisagara: 253–260). Besides, some student teachers profit the time of checking their examination papers to collect information for self-feedback (Rwamagana: 359–363). However, complaint procedures differ depending on the type of assessment and institution. As it is described below, some institutions require even

structural procedures for limiting students' complaints (Nyagatare: 321–328; Rusizi: 419–427).

Display of marks by teacher educators

In regard to administrative feedback, student teachers see the role of teacher educators as mainly limited to marking their examination papers and then publishing the related marks:

"... the assessments that are done here students do not easily know the results teachers who show results are few and what they generally do is to post those results". (Kicukiro: 240–242)

Another interviewee indicated that some teacher educators, even though not accepted, deprive student teachers the chance of learning from regular feedback; they rather publish all marks for both formative and summative assessments together. This puts student teachers into uncertainty, yet formative feedback would have informed them on needed strategies for doing better in summative assessment (Bugesera: 84–90). When asked how teacher educators help them after publishing marks, one interviewee said for instance:

"Nothing they publish the marks we see them and then go home (hmm) whether you pass whether you get zero when you have failed that is all this did not happen to me but the one who appeals must pay five thousand francs before seeing his/her booklet (hmm) for me this did not happen to me how many times could I appeal whatever I got I praised the Lord eeh (hmm)". (Ruhango: 192–196)

Re-marking students' examination papers

Besides posting results, student teachers see the role of teacher educators as reviewers of the marking for those who are dissatisfied with the first results:

"There is no other way points are posted or lecturers may come in classes and we see our results we got we discuss on them but I think that there is no other way If you are not satisfied with the points you got you complain then the problem is solved everyone where there is a problem (6 seconds) no one is treated unfairly we get what we deserve". (Nyarugenge: 163–167)

In addition to the example above, student teachers ask for being remarked when they are not satisfied with the given marks (Gatsibo: 202–203; Kicukiro: 280–288). Some student teachers understand that, even though they complain, teacher educators cannot give them free marks. However, when they see that student teachers are not satisfied, there are times when they have to correct again, and do it again and again (Rulindo: 214–225). In some institutions, in such cases, students' papers are re-marked by another teacher educator–different from the one who did it before (Rusizi: 419–427).

Teacher educators-members of deliberation committee

Being members of deliberation committee is another role of teacher educators pointed out in the interviews:

"They bring it back, the process here, they bring them back (huum), then we classify them, but at that time, the teachers (huum), they are the ones to decide when those who are not competent (huum) are going to repeat. They are the ones to decide (huum), he/she will tell you; you were not competent in this course (huum), you have to repeat (huum), you have to redo it". (Gicumbi: 137–141)

In accordance with the example above, teacher educators are seen to be responsible for the learning progression of student teachers, in the sense of deciding whether or not a student teacher should retake a given module. Gicumbi emphasized this when asked about whether after publication of marks there is time for conversing with the teacher educators about their performances. As he said, this is not done. When someone is assessed not competent, he/she only waits for reassessment (156–163).

Criteria 4: Requirement for receiving administrative feedback

In line with interviews, it appears that there are conditions to be fulfilled for student teachers to receive administrative feedback.

Availability of students' marks

As far as administrative feedback is concerned, interviewed student teachers reported that it is given only when teacher educators finish marking their papers:

"... sometimes you could do the assessment and it could take time (huum) to get what the marks the CP could go for complaining and whatever when it was available it could be posted as usual or they could give them to whom CP and then he could hand them to students too." (Rubavu: 201–205)

Another interviewee expressed that he does not like the fact that they do many assignments, and only see related results later when they have already completed learning the module posted together with results of the final exams. According to him, this does help them because, as he said, if ever this feedback was given on time it would help them know where they need to improve and put more efforts (Gasabo: 61–118).

Submission of the appeal

As reported by interviewees, for student teachers to know more and learn from what they did in the assignments or any assessment, they have to make complaints:

"They go with the copies, (huuum) they go with the booklets and mark them (huuum) after marking them they put the marks in the system UMS (huuum) then you find your marks in UMS (huuum) it is private as you have your password (huuum) you find your marks (huuum) this is how the situation is (huuum) if you have a problem you appeal, when you are complaining you write, you write to the teacher, they show you and they give you your booklet and then you complain ...". (Nyagatare: 321–326)

Student teachers complain mostly when they are not convinced with marks they have been given. However, it comes out from interviews that in this process, they are shown their papers and are able to talk to the teachers. This becomes then an opportunity for them to understand more how they could have answered some questions (Nyarugenge: 145–152; Muhanga: 482–494).

Criteria 5: Student teachers' positions in relation to administrative feedback

During interviews, student teachers shared their feelings and conception about administrative feedback.

Asymmetric relationship between student teachers and teacher educators

In regard to administrative feedback, it seems that the way it is delivered prevents student teachers meet the teacher educators to discuss on their performances. Some student teachers like Ruhango see this as problem:

"That is where I see the problem because a person is asked and he/she is given an examination booklet and he/she writes what he/she knows (hmm) but as usual they come and put the marks to the notice board but they don't give us the our examination booklet so that we can check the questions we have failed we should see our booklet and say we should answer in this way but they don't bring back the examination booklets so us to see where you had strength and weakness and improve (hmm) they don't bring back the booklets and that is the problem I found (hmm) you cannot know the reality except when you see the booklet and see the details but the way they show us marks cannot help to evaluate yourself and improve (hmm) because you cannot see how you wrote and what you wrote". (Ruhango: 151–160)

From this example, it is as if in this case of administrative feedback, teachers focus more on publishing results rather than using this feedback as an opportunity to talk with students about the progress of their learning. Other student teachers also support this idea. Nyaruguru said that marks just posted on the notice board bring doubts. They sometimes think that they are given wrong marks, but do not ask teachers because they fear that teachers may misunderstand their complaints. (Nyaruguru: 224–231). For this reason, some prefer to wait for a second sitting exam:

"... the learning process here, let talk about the online ones (huum), the online is the easiest one because the system marks immediately (huum), it marks and you immediately see your score (huum), if you score less than 70 you know that you will repeat. No any other negotiations (huum), you only wait for the reassessment time (huum), then you go and do it (huum), no any other thing (huum), it is like these quiz we normally have in class (huum), when you fail, not yet competent you must wait for the time when it will take place (huum), no any negotia-

tions with the teacher (huum), you only wait for the reassessment". (Gicumbi: 156–163)

From the above example, it appears that some teacher educators do not provide time for students' questions after the release of results. Once, they have published the marks, it seems they are done with students, that they no more get in contact with them. This was also indicated by Kicukiro who mentioned that after teacher educators post the results, they cannot find them for clarifying their doubts on the given marks. Even when they wish to understand how they performed they do not get the opportunity of talking to the teacher educators (Kicukiro: 241–246). Gatsibo perceives this lack of dialogue with teacher educators as a learning challenge. For him, teacher educators should listen to their students and then help them according to their different problems which they are supposed to know. However, he realized that some teacher educators do not take into consideration the fact that students learn differently (Gatsibo: 120–123)

Uncertainty towards learning progress

Student teachers pointed out that when they are not informed of their performances, they remain confused. They cannot know whether they have been successful or not. They continue to speculate until the results are released. One student teacher expressed this situation in the following words:

"I can say then that it is good that one can do a test and get the results (hmm) if he/she does not get the results he/she may still there (hmm) eeh saying that because he/she does not know whether he/she has succeeded or if he/she has failed (hmm) he/she may keep it that way saying I wait sometimes you can do an exam and think that you succeeded while you really did not (hmm) setting in your mind that you succeeded that you cannot miss the half but then you find your yourself under the line (hmm) that is it then it is helpful when they give you the results as soon as possible (hmm) it enables you to know how you may behave". (Nyanza: 287–295)

As student teachers have indicated, they do not feel comfortable with delayed administrative feedback. They do not get the feedback when they need it. They see such feedback unhelpful for their learning process

(Kicukiro: 305–314; Kigali: 167–171). They do not appreciate the fact that some teacher educators delay the communication of results on formative assessment. These results are sometimes communicated together with results of the summative assessment. According to them, formative assessment becomes then assessment for marks instead of being used for students' learning. They remain uncertain about their learning progress, while formative feedback that they miss would help them (Gasabo: 247–253; Gatsibo: 218–227). Student teachers expressed that delayed feedback leads them to cumulative failures. They do not see this as a good example from teacher educators. For them, students should be given the right to know their strengths and weaknesses on time as without such a feedback, students' learning is handicapped (Gakenke: 293–302; Kicukiro: 255–263).

Restrictive complaints' process

As mentioned in the interviews, some institutions require the fulfilment of certain conditions for students' complaints to be accepted:

"Nothing they publish the marks we see them and then go home (hmm) whether you pass whether you get zero when you have failed that is all this did not happen to me but the one who appeal could have paid five thousand francs before seeing his/her booklet (hmm) for me this did not happen to me how many times could I appeal whatever I got I praised the Lord". (Ruhango: 192–196)

From the example above, student teachers explain that they have to pay a certain amount of money for having access to their examination papers. This was also mentioned by other student teachers who perceive this payment as an obstacle for not only complaining about marks but also for getting feedback. They see this as problem to their learning progress as they have first to wait longer for marks to be published without additional feedback and are secondly denied the opportunity to have a look on their papers. In the opinion of these student teachers, once marks are released, there should be no complication for students who would wish to check their examination papers (Gatsibo: 198–202; Kayonza: 410–427). Besides, some student teachers think that such regulations are established to avoid chaos or disorders that would be created by a big

number of students who sometimes complain for nothing. In such cases, they are limited by the amount of money they are required to pay. To reinforce the restrictions, students have sometimes to pay twice, one amount for checking the examination paper and another amount for being re-marked (Nyagatare: 321–328)

Marks enough for feedback

In their responses, some student teachers seem to have an understanding of feedback limited to communication of marks to students. One student teacher expressed his understanding in the following words:

"[feedback] is when someone does an exam (uuuhmn) you have to get the feedback of what you have done (uuuhmn) the feedback is like the marks (uuuhmn) you have done the exam and you need to know the results from what you have done (uuuhmn) so the marks they are going to send to you is the feedback (uuuhmn) from the exam you have done (uuuhmn) (uuuhmn) (eeeeh) the results (uuuhmn) (uuuhmn) this is how I understand it". (Rwamagana: 481–486)

In addition to the example above, there are students who share the same understanding as Rwamagana. They understand feedback as communication or reception of assessment marks. They added that these results inform them about their learning progress. Once the results are positive or negative, they are respectively motivated or know that they have to work hard to avoid experiencing the same result next time (Gisagara: 326–328; Gicumbi: 145–152; Musanze: 227–236 & 250–257; Ngororero: 155–156; Nyabihu: 305–308). Besides, Muhanga shares the same understanding but at the same time expressed that marks alone as feedback can be a source of motivation but also a source of demotivation (Muhanga: 566–569). It appears in the interviews that some teacher educators have understood the need of providing feedback to their students. However, as they said, they plan to use communication of marks as feedback to their students and think that they will be helpful to them (Kamonyi: 708–711; Musanze: 250–257; Nyanza: 703–711).

Marks alone tell nothing

In accordance with interviews, some student teachers reported that showing them marks only for feedback is not enough to inform them about how to improve their learning process. For example, one interviewee said:

"The way they give marks you can see that sometimes you have the work in group and when you work in group and when there is no presentation and then say that person who is in front of has answered well the question I asked them and you get marks that are not equal in group then you say I did not fail any question he/she asked and I am in the same group with these ones what happened (hmm) and normally students focus on marks more than other things I don't know the reasons but it leads you in problems so if he/she has the first and the second courses it will be worse you may say whatever I can do I shall get nothing". (Nyaruguru: 298–305)

In the same perspective, other student teachers expressed that with marks only they cannot know where they have strengths and weaknesses. Posted marks provided only information about who failed and who succeeded. After doing exams, they do not meet teachers again to talk about their performances. They only have to wait for the publications of marks, which is sometimes done with delay when they have already started holidays. They see this as a problem, and as they said, they think that seeing their examination papers would at least help them figure out where they stand and what they need to do for improving their learning (Burera: 144-150; Gisagara: 192-200; Kayonza: 410-414). Some student teachers mentioned that this culture of providing marks only for feedback leads them sometimes to question the transparency of teacher educators' marking system. They wish to be shown their examination papers for checking how they have been marked, assessing their learning progress, or identifying the teachers' assessment and marking strategies. When they are not satisfied with given marks, they sometimes miss classes or use their learning time to complain. There are times they do not appear on the published list of marks. What discourages and makes them unhappy, as they said, is that sometimes teachers refuse to help them saying that they have not time, that they have to address their problem to the administration (Ruhango: 164-168; Kayonza: 440-469; Kicukiro: 292–301 & 318–325; Kamonyi: 97–107). Another student teacher said that besides showing them marks, it would be better if teacher educators could take time to advise them how to improve their learning process (Gakenke: 312–315). For Rubavu, after the communication of marks, student teachers should rather take the lead in asking feedback from teacher educators to know what they have to do for overcoming identified gaps (Rubavu: 171–176).

Late feedback to be avoided

In regard to administrative feedback, there are student teachers who reported dissatisfaction about delayed feedback. The statement below is one example:

"... even me who is in internship (uuuhmn) I am doing the internship but you can see that students are want to know (uuuhmn) the marks they got (uuuhmn) and whatever (uuuhmn) so, when you delayed to give it back it discourages them (uuuhmn) it discourages students and also I, myself I am studying (uuuhmn) if the lecturer spends ... after doing a quiz, if he/she spends the whole month without bring back those marks (uuuhmn) after that you feel you have a problem (uuuhmn) you ask yourself how many marks did I get? How many questions did I fail? (uuuhmn) which one I succeeded? (uuuhmn) (eeeeeh) it means that if it comes on time (uuuhmn) it helps that student to see the results, if there is something to change (uuuhmn) like the mistakes he/she did (uuuhmn) then he/she can change them (uuuhmn) (eeeeh) it helps him/her and then what he/she did gives him/her confidence to continue studying so that he/she can do many other things". (Rulindo: 270–282)

Here, the student teacher reveals how a delayed feedback does not help students know their learning situation. It seems that he got used to getting marks for feedback. However, as he explained, he wishes these marks to be disclosed on time for students' self-assessment. Other student teachers shared the same opinion as Rulindo. As they said, late announcement of marks leads them to confusion about their performances. With this culture of delaying marks, they cannot know where they did well, where they failed, and where they need to improve. They expressed this as something hindering their learning process. They claimed that when marks are communicated earlier, they know their learning situation and are motivated to study hard for preparing the sub-

sequent assessment. It appears from these interviews that concerned student teachers are used to marks-oriented assessment something that leads them to focus more on learning for marks (Nyaruguru: 196–199; Gatsibo: 218–228; Gakenke: 308–311; Gisagara: 213–234). In this regard, some student teachers explained feedback as something that follows tests or exams:

"feedback is to bring back the copies (hmm) to see what you did for us we used to do that in internship after marking the students it means after giving a quiz (eeh) then after submitting the copies we used to mark them then after we used to mark it on the blackboard". (Nyaruguru: 483–486)

The same understanding is shared with other student teachers like Nyanza who as well explain feedback as a technical process. As he said, teachers have to give tests to students, correct them and then bring back results to students (342–351). Nevertheless, student teachers showed different understandings about the delay of feedback. One student teacher expressed that it is delayed when marks are not communicated up to five days, yet another referred to one month (Gakenke: 309–311; Gatsibo: 210–214; Rulindo: 271–277). For Muhanga, he associated late feedback with big class size and teacher educators' workload. In this regard, he suggests institutions to recognize such cases and provide assistance for speeding up the marking as for him, student teachers can take measures for improving their performances once their marks are communicated on time (579–589).

Limited feedback on teaching practice

It emerges from the interviews that student teachers face a situation not allowing them to receive enough feedback on teaching practice. Here below is an example:

"... another thing possible I see from these universities we are studying in (hmm) for teachers the challenges I have seen is the application (hmm) we are taught much theory but for practice (hmm) it is not enough for students who did not do education at secondary level they cannot get enough knowledge in practical way at this university I have noticed this because my classmates who were not in teacher training colleges at secondary they face so many challenges and

that challenge is there (hmm) there are challenges regarding learning". (Muhanga: 22–28)

For Muhanga, teaching practice done at his university are not enough for student teachers to learn how to teach. Besides, Muhanga reported that during internship, they were visited only once by university teachers for giving them marks (225–227). When asked about teaching practice, Kamonyi mentioned that they did microteaching where each group of five student teachers were given fifteen minutes for teaching classmates a prepared lesson. Even though, every group member was given around three minutes to teach, it was a good experience for him. As he said he learned from it how to stand in front of people with confidence. However, he sees three minutes' time insufficient for learning how to teach. For him, the whole fifteen minutes should be used by only one student teacher (Kamonyi: 302–376). The wish for increasing time planned or used for teaching practice was also mentioned for internship. This was indicated by student teachers when sharing their experiences in regard to internship (kanombe: 203–213; Nyagatare: 294–300; Kirehe: 39–47).

Need of good role model from teacher educators

It emerges from interviews that teacher educators wish teacher educators to be their role model in regard to teaching and more especially provision of feedback:

"Normally an educator should be a role model as someone you prepare you prepare him / her wishing him / her to be as you are it would be better if a teacher teaching someone preparing to become a teacher some of the things he/she teaches him / her to do he/she also does them to be his / her role model even where he/she is heading to if for instance you are preparing a teacher who would teach you should tell him / her that you need to know whether your students succeeded or failed and why as you should teach him / her in such conditions so that he/she may imitate you if the teacher who taught you did not give you feedback you cannot find courage to give feedback to your own students thinking that this is how things should be done". (Gasabo: 210–218)

In addition to the statement above, other student teachers made it explicit that teacher educators have to be their role models in everything including the provision of feedback. They think that becoming good teach-

ers they should be well trained (Nyarugenge: 265–268; Nyanza: 671–675). Kamonyi expressed also a desire that teacher educators should set an example for them. He said that teacher educators should not only show them marks, but they also add comments and talk to them for helping them know their weaknesses, and ways of improving them (Kamonyi: 672–699). Musanze, on the other hand, expressed that they feel comfortable when teacher educators show them examination booklets. This removes, as he said, confusion and doubts that would be created by being shown marks. They see this different from checking their marks only on the noticeboard. As per him, being shown their examination booklets increases their motivation (Musanze: 194–209).

Student teachers expressed that receiving marks is not enough. As they said, good teaching from teachers is what they need—a good example to learn from as future teachers. One student teacher said for instance:

"Like a lecturer who has taught us the introduction to chemistry (uuuhmn) the way he/she did that first he/she taught us while sitting (uuuhmn) the second one, he/she used the projector only (uuuhmn) after plugging the projectors he/she should read the slides only (uuuhmn) how can you underline a molecule by a mouse when you are in the mechanism is it possible? you can see that that lecturer is not my role model at all (uuuhmn) no, (uuuhmn) in general, if this one says that the module ends (uuuhmn) it is okay that we got the marks but I cannot take an example from him so that I can apply it when I shall be outside in everyday life at work". (Ngoma: 521–528)

Summary of the type As a conclusion, administrative feedback focuses on the communication of grades. As it appears from interviews, this is mainly done for fulfilling academic and administrative formalities, and not for student teachers' learning. Findings show that student teachers face the same experiences as far as teaching practices are concerned. In such cases student teachers, while in internship, focus on getting marks more than what it is meant for. This is different from correctional feedback, which is described in the next section. For this feedback, the focus is put rather on informing student teachers their weaknesses or mistakes.

4.3.2 Second type: Correctional feedback

The next type evolved from the abduction process, is the correctional feedback. This type is described in accordance to the criteria (see chapter 4.2), namely aim, communication, role played by the student teachers and teacher educators, requirement for receiving or providing a correctional feedback, and student teachers positions about correctional feedback.

Criteria 1: Purpose and content of correctional feedback

From experiences shared by interviewees, the purpose and content of correctional feedback were mentioned amongst what they said.

Weaknesses oriented feedback

As explained by student teachers, the purpose for correctional feedback was to indicate them their weaknesses:

"Even the academic master visited me (huuum) because he had to check if really I am not doing what with the children I am not giving them irrelevant things (huuum) in most cases he came to me while (huuum) checking my pedagogical documents he could come and see and record and check the ones of the subject teacher ... And go (Huuum) I was not the one to be given the remarks (huuum) he could give them to his teacher and his teacher could also give them to me after". (Rubavu: 343–352)

According to the statement above, the primary visit during internship was not to help the student teacher improve his teaching practice, but rather to verify whether Rubavu was not doing something wrong. Even at the end of the visit, the feedback was not directly given to Rubavu but rather to the cooperating teachers. There are other student teachers, who shared the same experience as Rubavu. Kamonyi said that during microteaching the teacher educator could focus only on their mistakes and feebleness. Comments were given to those who made bad presentations, and who showed fear. The good thing is that they were not only informed about their weaknesses but also advice for improvements (Kamonyi: 358–360). As it appears from other interviews, concerned student teachers experienced unbalanced feedback, focusing on negative side.

This was mainly the case for feedback given during teaching practice: microteaching or internship. The focus was put on telling student teachers only their weaknesses and how to correct them. As revealed by interviews, in regard to correctional feedback, feedback on what was well done was missing. More focus is put on students' mistakes and sometimes associated with communication of grades but ignoring the motivational aspect of the feedback. (Nyagatare: 82–90 & 157–170; Kamonyi: 638–644; Ruhango: 256–260; Rutsiro: 268–273; Nyanza: 273–287). One student teacher added that even small mistakes were not ignored. The teacher educator visiting during internship could identify every minor error, mention to the student teacher, but with advice on ways for correcting or improving (Karoongi; 215–219).

Criteria 2: Communication of correctional feedback

Student teachers, according to interviews, talked also about communication process of correctional feedback.

Immediate or delayed feedback

As far as correctional feedback is concerned, interviews show that it is given immediately or later. One student teacher said for instance:

"... he/she tells you your mistakes in the classroom, so that the next to you may correct himself (uuhuum) in this case he/she does not tell you them when you are out of the class (uuhuum) he/she says them and the next to you knows that he/she is going to avoid something (uuhuum) and he/she will also correct him/her correct what he/she has ... because, while teaching she writes down the mistakes you are making (uuhuum) then he/she criticizes you and your colleagues also criticize you and after the next ones are not going to make the same mistakes". (Kayonza: 360–366)

Here Kayonza was asked about feedback in regard to microteaching. As he said, feedback is given immediately so that other student teachers can learn from mistakes made by colleagues. In this case of Kayonza, the feedback is not only given by the teacher educator but also other student teachers are involved. For Ruhango, feedback was not immediately given. As he said, the teacher educator gave him an advice concerning how

he had to correct the name of a place he had wrongly indicated to students (Ruhango: 263–268).

One-way feedback by teacher educators

In regard to correctional feedback, it appears from interviews that student teachers are not, in this case, involved in the process of feedback:

"he/she also shows you the mistakes (eeh) because he/she tells you like (hmm) I see may be let us say may be those things you wrote (hmm) if we take like a written work (hmm) he/she shows you these contents are not necessary (hmm) or these ones are not well written (hmm) he/she correct you and tells you how you should have written them (hmm) you should have done it like this and then if it is the questions they asked you that you should have explained (hmm) he/she says this one you should have answered like this (hmm) this is how you should have answered this question this one remained unanswered (hmm) you should have answered it like this (hmm) because he/she directly answers it (hmm) it means that if your colleague asks you (hmm) during your presentation (hmm) and he/she realizes that you are not answering in a way that is convincing the class (hmm) he/she directly intervenes to help you convincing the class that shows that you did not answer it well (hmm) the he/she tells you this question here you did not answer it well (hmm) but in the script he/she correct your writings (hmm)". (Nyanza: 234–245)

From the statement above, only the teacher gave feedback. As the student teacher said, he is not given the opportunity to say or add anything. Even when he makes a mistake or is asked by peers and seems unable to respond, the teacher educator instead of guiding or helping him respond, he/she responds immediately. There are other student teachers, who share the same experience as Nyanza. According to these student teachers, feedback is given to them without dialogue after being visited by teacher educators during internship. After the observation, the teacher educators tell them their weaknesses and how they should have taught (Karongi: 222–225; Rutsiro: 259–264). Karongi seems to be comfortable with this feedback approach as for him, the feedback was given in secret and considered teacher educators to know more than student teachers (Karongi: 226–227). As per Gicumbi, student teachers' errors were used to give student teachers advice of how they should manage their students (Gicumbi: 258–267).

Teacher educators-communicators of correctional feedback

It emerges from interviews that correctional feedback is given by teacher educators either in the classroom or in the schools after observing student teachers in the internship.

"The small thing you did when you are mistaken a little bit he [Cooperating teacher] could call you and guide you (hmm) and tell you that at that thing it was not like that but it was like this (yes) he was like a guide (yes) he did not come for sitting only but also he guided me telling me that at that point it would not to be like that and that you can change it like this but he used to tell me personally and secretly". (Karongi: 215–219)

In addition to the statement above, it becomes visible from other interviews that correctional feedback was given by teacher educators. Teacher educators are the ones indicating to student teachers their errors and how they might correct them. It appears from these interviews; the teacher educator is the only one talking. he/she does not involve student teachers. Some teacher educators first show the student teachers their mistakes and then the marks they have given them (Gasabo: 160–175; Kayonza: 360–366; Nyanza: 234–245 & 273–287). This issue leads directly to the next criteria, the role of both, the student teachers and the teacher educators. While for criteria 2 the situations of giving feedback are focused, for criteria 3 the uprising positioning of both are in the centre.

Criteria 3: Role of student teachers and teacher educators regarding provision of correctional feedback

From what student teachers said during interviews, it appears that both student teachers and teachers have a role to play in regard to correctional feedback.

Listening

In line with what is mentioned above that correctional feedback is oneway communicated, it seems that student teachers are not expected to play an active role in this process rather to listen to the provider of feedback. One interviewee said for instance: "The small thing you did when you are mistaken a little bit he could call you and guide you (hmm) and tell you that at that thing it was not like that but it was like this (yes) he was like a guide (yes) he did not come for sitting only but also he guided me telling me that at that point it was not to be like that and that you can change it like this but he used to tell me personally and secretly". (Karongi: 215–219)

According to the experience above, Karongi had to listen to what the teacher educator was telling him and then execute. Other student teachers lived the same experience and especially during internship. After class visits either by the cooperating teachers or university teachers, feedback was given but in a one-way direction, teacher educators telling student teachers their mistakes, and what they have to change or improve. Sometimes, feedback was used as an explanation of given marks (Karongi: 231–239; Rutsiro: 259–264; Nyaruguru: 440–443).

Accusatory

It becomes observable from some interviews that student teachers see teacher educators as fault-finding while giving feedback. Here one interviewed student teacher said for instance:

"he/she may bring the marks (uuuhmn) and we should meet in the class room (uuuhmn) then after meeting in the classroom, we use reg [registration] number and do not use our names (uuuhmn) he/she may say 1955 and then I may put the hand up and receive my marks (uuuhmn) or 2055 and I may put the hand up and get my marks (uuuhmn) and then he/she may have put the failed numbers aside and then he/she may say 1955 has failed". (Ngoma: 169–174)

As per the statement above, marks are not displayed via either the notice board or the online platform. The teacher educator calls rather the students according to their performances. Even though at university level, the student teachers who failed are called last and mentioned so that everyone present in the classroom can see them. The same interviewee mentioned that with this, such student teachers decide to seek help from colleagues (Ngoma: 175–177). Besides, Nyamasheke shared an experience of one teacher educator who used to insult student teachers in case of spelling mistakes. As he said, student teachers' questions or mistakes were negatively criticized by the teacher educator (377–381).

Criteria 4: Requirement for receiving correctional feedback

In line with experiences shared by interviewees, it appears that correctional feedback is given a certain condition.

Students' mistakes

As per interviewees, correctional feedback was given upon students' weaknesses:

"he/she accompanied us in the classroom to see how we teach (huuum) after the teaching sessions we came back and had another conversation (huuum) he/she should say you should not do that like that (huuum) and say if it is about language, you have to improve (huuum) and then you improve (huuum) you have to improve this or that (huuum) if it is about the use of resource materials, you have to look for them so as to make students understand (huuum) he/she should tell us all the weaknesses we had (huuum) and then advised us". (Burera: 398–404)

According to Burera, the feedback that he received was focused only on the weak part, telling him what he had to correct in regard to teaching practice. The good things he did were not mentioned during the feedback process. This is in line with another student teacher who said:

"There is programme set by ... where lecturers should visit us two times. (uuuhm), When he/she comes you prepare your lesson as usual (uuuhm), and you teach it, (uuuhm), then he/she tells you things that you have to correct basing on, before you take your time to prepare your lesson and teach it (uuuhm). So, he is there aside and observe focusing on what is wrong, he checks your teaching documents (uuuhm), the way you have prepared your lesson (uuuhm), if you have followed standard, is there anything that needs improvement, (uuuhm), he/she is the one who is guiding you". (Rusizi: 102–108)

Criteria 5: Student teachers' positions in relation to correctional feedback

In regard to correctional feedback, interviewed student teachers have shared various feelings and conception. As per the interviews, some feel blamed, fear to pose their questions to the teacher educators and as result prefer to make use of self and peer feedback. They see correctional feedback as creating an asymmetric relationship between teachers and students on one side, and on the other side, they do not see teacher educators as role models.

Student teachers feel blamed

As student teachers expressed during interviews, they dislike the way correctional feedback is given, especially when teacher education takes an abusing side. In this regard, one interviewed student teacher shared his experience in the following words:

"there are some [teacher educators] who instead of correcting you they I can say brutalize you (hmm) that then causes something bad in students whereby even if they have opinions to give in a group discussion they are not confident out of the fear of being put to shame by the teacher in front of other students (hmm) that time students are not comfortable with their teacher and the teacher is not helping to develop students (hmm) because he/she creates something in them I can say (hmm) he/she does not create the ambiance but rather creates timidity in them (hmm) because they are afraid to make mistakes in front of him/her". (Nyamagabe: 256–263)

As per the statement above, when teacher educators focus more on students' mistakes in a way that student teachers feel abused. Student teachers feel uncomfortable and end up becoming demotivated. For Nyamasheke, she expressed that she does not like when they are insulted by teacher educators even for what she considers as small spelling mistakes. For her, such a kind of feedback should be avoided as it demoralizes students from active participation in the classroom (370–386). As a result, in case of misunderstanding or failure in a given test, student teachers fear to ask questions to teachers. They rather prefer, in such cases, to make use of self or peer feedback to avoid being blamed or misinterpreted (Ngoma: 175–177; Rubavu: 132–136)

Asymmetric relationship between teacher educators and student teachers

According to interviews, it appears that student teachers see correctional feedback as leading to asymmetric relationship between teacher educators and student teachers. An interviewee said for instance:

"yet there is another one who may come and say I am a Doctor I have a masters' whatever and stand there after giving you the syllabus with too much English

and then go (huuum) you can observe the person and say I will not ask this person if I ask him/her he/she will take it as (uhhummm) he/she will misinterpret it". (Rubavu: 132–136)

As Rubavu expressed, some student teachers choose to keep quiet in the classroom as a result of power relationship exercised by teacher. This is in line with the example shared by Karongi. In this example, Karongi mentioned that after an assessment they could not meet the teacher educator for feedback except when the teacher educator asked a difficult question given as a trap, that, the question which the teacher educator knew that no student teacher can solve it. Even in this case, they would ask the class representative to go and raise the question on behalf of the whole class (Karongi. 139–146). Besides, when asked the meaning of feedback, there are student teachers who see feedback as given by the teacher, as a one-way process. The role of the students in this process is not mentioned (Kirehe: 267–272; Ngoma: 199–205; Kanombe. 157–166).

Making use of self and peer feedback

As shallowly mentioned above, it seems that for correctional feedback, student teachers prefer to make use of self or peer feedback. A student teacher said for instance:

"For us students, those who were strong in other words competent they could explain deeply to their colleagues (huum) he could not feel ashamed of asking you any question he might have (huum) while for a teacher there are some you cannot ask but in groups it is where we could study from and the weak ones could benefit (huum)". (Rubavu: 63–67)

According to Rubavu, some student teachers fear to ask questions in the classroom to avoid facing teacher educators' blames. He added that such student teachers prefer to seek support from colleagues to understand what they were not able to understand in the classroom. As he said, they are anxious while in classroom, yet in groups with colleagues they feel comfortable to pose whatever questions they have about their learning process. Other student teachers also share the same opinion with Rubavu (Ngoma: 166–177). However, sometimes teacher educators are the ones who encourage student teachers whom they see that they have

problems to seek help from their colleagues (Ngoma: 136–143). For Gicumbi, he said that for being assessed as competent or not yet competent in teaching practice, teacher educators use a list of criteria. However, this checklist is kept confidential so that when a student teacher is assessed not competent and has to repeat he/she cannot know where he/she has to improve. In this case, they are helped by colleagues (Gicumbi: 315–325).

Teacher educators not seen as role models

When asked about teacher educators taken as role models, one student teacher responded in the following way:

"... if we take primary as an example, the way we used to study in past, they used to beat us but I cannot say that it was bad, some teachers might threaten you till (uuuhmn) till you get scars and you could even fail to answer what you knew (uuuhmn) in most cases when he/she threatens you, when he/she threatens you, when you have fear, psychologically when you have fear, you cannot you even forget what you know (uuhmn) (uuuhmn) you should let the learner tell you what he/she knows (uuuhmn) he/she should answer what he/she knows (uuuhmn) then you will tell him/her mistakes but after giving him/her the opportunity to answer (uuuhmn) when you threaten him/her you destroy him/her psychologically". (Kirehe: 525–534)

Kirehe used the example above to describe teacher he cannot consider as his role model. Here, he talked about a teacher who brutalizes students, using students' mistakes to exaggerated critique. Other student teachers shared also the same opinion, but added that instead of blaming students, teachers should rather use a constructive approach (Nyamasheke: 370–377 & 404–407; Nyamagabe: 256–262). For Nyagatare, a teacher educator who prioritizes punishment before listening to student teachers' problems cannot be his role model (533–538).

Summary of the type

To conclude, findings show that in the correctional feedback, the focus is put on the student teachers' mistakes or weaknesses. Showing what the student teachers did well – an aspect of constructive feedback – is missing. Teacher educators give the feedback. Student teachers are passive in

the process of feedback; their role is to listen to what teacher educators tell them. Besides, student teachers do not see teacher educators who blame students because of their mistakes as role models. This issue of role modelling becomes crucial and one of the major differences compared to instructional feedback – another type, which is described in the following section.

4.3.3 Third type: Instructional feedback

Instructional feedback is another type of feedback experienced by student teachers, which became visible during the abduction process. In the following I will describe this type according to different criteria namely aim, communication, role played by the student teachers and teacher educators, requirement for receiving or providing instructional feedback, and student teachers positions about instructional feedback.

Criteria 1: Aim (Purpose and content) of instructional feedback

While describing their experiences in regard to feedback, some interviewees made reference to the purpose and content of the feedback. In this case of instructional feedback, interviewees came to the fact that it is given for learning purpose and the focus put on mutual identification of strategies in this regard.

Clarification of student teachers misunderstanding

In the interviews, student teachers expressed feedback from the teacher educators as helping them to improve their learning process. One interviewee said for instance:

"The way we are taught is in a way that the teacher teaches a course and is consistent about it so that he answers on time a question asked by every present student and thus everyone who comes that day goes back home satisfied". (Gasabo: 40–42)

In addition to the example above, Kamonyi revealed that teacher educators strive in helping every student teacher to learn effectively. In case of assignments, teacher educators take time to hear their ideas, and then use feedback to clarify them, and provide additional information to supplement their knowledge. Here they appreciate this feedback especially because of the fact that challenges that would hinder their learning process are identified and solved right away (Kamonyi: 90-92; Rulindo: 118-123). Ngororero pointed out that students with particular learning problems get individual support from the teacher educators. As she said, when they see that it is necessary, teacher educators prefer to call these students for advice instead of waiting to see them fail. With this provided support, some student teachers do not even wait to be called but rather take the initiative to seek for advice (Ngororero: 77-95). In some cases, the teacher educator did not give copies to student teachers who failed. They would rather call these student teachers in the office for discussing on their learning problems, and then offer strategies for improving their performances. Student teachers see that some teacher educators prefer the strategy of having dialogue with students especially for discussing about problems identified in a given assignment, or tests in order to reflect together on the causes behind as well as learning strategies to be undertaken. More additionally, student teachers appreciated the fact that teacher educators gave them opportunities to ask questions during the teaching and learning process for on time feedback – a strategy perceived as enhancing their relationship for the learning benefit (Burera: 162-173; Rubavu: 113-119 & 184-194). In this line, Kirehe said for instance:

"... teacher gives us the opportunity to ask him/her (uuuhmn) and he/she answers (uuuhuu) it helps us and we hope we are going to use this strategy when we will be teachers". (Kirehe: 535–537)

Initiating ongoing dialogue for learning purpose

For student teachers to benefit more from the feedback, teacher educators used the strategy of pushing them to expose their problems. In this regard, one student teacher said, for instance:

"Yes, one-day he/she gave us an assignment but truly speaking it was not well understandable (huuum) it was about what we had learnt but not understandable (huuum) we did not know what to do and how to do it (huuum). We called him/her and ask we told him/her our colleagues on the assignment (huuum) he explained us how that assignment had to be done (huuum) and it was helpful. If ever we did it without asking him/he before I think we would have done it in a wrong way (huuum) but due to the fact that we asked him/her for explaining to us (huuum) we did it well and we performed it." (Gakenke: 111–118)

As it appears from the statement above, challenging questions, are used by teacher educator to push their students to seek for feedback, which, as expressed above, they benefit from. As per interviews, teacher educators could first let student teachers explain how they did, and with this, they could be able to identify where the problem rises and start from there to help them. With this possibility, it becomes visible from interviews that student teachers have understood the importance of asking for feedback. Interviewees said that it is good once given an assignment to approach teacher educators for guidance in case of any obstacle. This was seen as very helpful to them as they use the explanations from the teachers to continue working on the assignment instead of submitting an incomplete or wrongly done assignment. They used the teacher educators' availability for support (Burera: 178-191; Kamonyi: 284-287). As per these interviewees, they could make use of this opportunity to gain additional knowledge without which they would not feel satisfied with their learning (Rubavu: 190-194).

Reflection on teaching practice

It appears from interviews that student teachers were not only encouraged to seek for feedback at university, but also at schools where they were doing their internships. As indicated in the example below, the concerned student teacher reported the usefulness of feedback in regard to teaching practice at university as microteaching:

"It means that we start doing it among ourselves among colleagues we study together in the same classroom then we prepare a lesson we prepare a lesson and you teach it in front of your colleagues in the classroom being together but with the presence of the lecturer then when you finish to teach that lesson they seem to do comments on what you did telling you where you did good in the lesson they tell you either where you did not do it appropriately how you should have done it and it means that it leads you benefit more because your colleagues as

they go on teaching also in a certain number in the same classroom you continue to gain more". (Nyarugenge: 185–194)

According to the example above, and some other examples, student teachers learn from good things done, and suggestions for improvement indicated either to the concerned student teacher, or to colleagues. As per interviewees, this assistance from the teacher educators was appreciated for being useful in improving the quality of their teaching practice. They were for instance advised to adapt the language use to the level of school students, call students by their names not using "you", use active methods and relevant examples, control disturbances, and make use of locally available materials for fabricating teaching materials. Interviewees declared to have learned a lot about creating a good learning climate for their students. Student teachers appreciated how this feedback was helpful and confidential, as not being blamed in front of the students. As they said, the feedback was rather given in private after the lesson was completed (Burera: 338-349; Nyabihu: 82-96; Rwamagana: 124-142; Rulindo: 366-375; Rusizi: 124-146). Besides, an interviewee testified how feedback from teacher educators helped him remove misconceptions he had about teaching. For him, teaching meant coming in the classroom and tell students what you know. He had had no idea about using positive reinforcement in the classroom, and he planned of establishing a hierarchy between students and himself. However, as he said, teacher educators helped him to learn that learners have to be involved in the teaching and learning process, and well treated in the classroom (Ngoma: 374-389). Another student teacher pointed out that he got helpful feedback from his / her mentor who, amongst other things, advised him / her to ask for support from cooperating teachers. As she said, this would help him improve the quality of his / her teaching, and learning process, more especially regarding the clarity, and subject knowledge (Kayonza: 288-293).

Identification of learning strategies

According to interviewees, the content of feedback as far as instructional feedback is concerned was focused on identifying strategies for student

teachers to improve their learning, and teaching practice and more especially for the acquisition of competences. In this regard one of these interviewees said:

"...you may be teaching a lesson, you may forget something or pronounce it badly (uuhuum) you can pronounce it badly and someone may realize that (uuhuum) you can correct yourself and say that you had made a mistake (uuhuum) or you can say it badly and don't remember that it is a mistake (uuhuum) in class, he/she cannot immediately tell you that you have made a mistake (uuhuum) when you are moving discussing how was the lesson, he/she may tell you that (uuhuum) you were mistaken somewhere (uuhuum) next time you will do it in this way, or once you reach there tell them that you have made a mistake (uuhuum) and then correct it, you will do it like that (uuhuum) (uuhuum) but you can also say this and realize that it is a mistake and you immediately tell them that you have made a mistake (uuhuum) it should be like this here". (Kamonyi: 554–564)

As stated above, the interviewee was helped to know how to correct himself in case he made a mistake during teaching, so as to avoid leaving students with wrong information, and thus improving the quality of teaching via factual correctness. Moreover, some students testified to have learned from school-based mentors how a good lesson preparation should look like, how to organize the teaching process that allows every learner to learn effectively, and assessment strategies. These interviewees expressed to have additionally learned the necessity of using concrete teaching materials, relating the content of the lesson to the daily life of the learners to ensure better understanding, and time management (Gisagara: 474-493; Gatsibo: 304-323; Burera: 407-417; Nyabihu: 100-109). Facilitation of students during group works for supporting their work, and avoiding disturbances was also mentioned among what interviewees learned from received feedback to improve their teaching practice (Nyanza: 414-426; Karongi: 285-290). As student teachers mentioned, this feedback was given by different people like university teachers, cooperating teachers, school-based mentors, and school leaders.

Criteria 2: Communication strategies regarding instructional feedback

As far as communication of instructional feedback is concerned, interviewees expressed this in terms of when, and how the feedback is communicated as well as who is involved in the feedback process.

Immediate or timely communication

In regard to instructional feedback, interviewees pointed out it is timely given without delay. One interviewee said for instance:

"The way we are taught is in a way that the teacher teaches a course and is consistent about it so that he answers on time a question asked by every present student and thus everyone who comes that day goes home satisfied". (Gasabo: 40–42)

From the text above, student teachers seem to appreciate, and benefit more from well-timed feedback. According to interviewees, individual, and groups' questions were answered, and more especially after oral presentations of group assignments – a method which, as per interviewees, is mostly used by teacher educators. Student teachers expressed that they experienced immediate feedback also during teaching practice, during either microteaching or internship. Related examples indicate that not only time, but also the quality of content are what make feedback helpful to student teachers (Rusizi: 185–195; Kigali: 78–81).

Feedback given continuously for feed up and feedforward

According to interviews, student teachers testified to receive feedback on a continuous basis:

"Teachers (eeh) the teachers the way they help us is that every teacher does his/her best to create good relation with us you may ask how (hmm) he/she answers the question you ask him/her he/she makes you confident and he/she answers you and ask who has the question on this page (hmm) if you have any question you ask he/she says if someone has a question he/she may ask even when the exam is approaching he/she says before the exam comes if you have a question you can ask (hmm) but before they give the exam it is after publishing the examination timetable he/she comes and say come and ask the questions you may have before the exam (hmm) for us we see this as a help". (Nyaruguru: 246–254)

Good learning climate, as expressed for instance by Nyaruguru, becomes a supporting factor for ongoing feedback from teacher educators. Here teacher educators make use of this good learning climate for regular diagnosis of students' problems and give them feedback tailored to their needs (Kirehe: 465–470; Nyabihu: 128–130). This creates a culture of learning as later on student teachers take the initiative to expose their problems without waiting for teacher educators to ask or discover them (Kigali: 187–194). As far as teaching practice is concerned, some student teachers expressed that they benefit a lot from regular feedback provided by either cooperating teachers or schools-based mentors (Burera: 359–368; Gasabo: 187–194; Rusizi: 109–119).

Easy going and use of multiple ways communication of feedback

According to interviews, student teachers reported that for instructional feedback, it is given in various ways that make student teachers comfortable for asking and receiving it. This is illustrated by the example below:

"I can see it as normal (eeeh) if the colleagues get a problem and discuss about it and when he/she has not understood, you can even discuss a certain point (uuuhm) may be some factors and you can see that you don't have the same point of view about something, and then you can decide to ask the teacher (uuuhm) a colleague might immediately call the teacher and ask (uuuhm) and then the teacher gives us clarification or he/she can orient us elsewhere (uuuhm) (uuuhm) may be the factors of some topics, he/she may ask the teacher and this one may help him more (uuuhm) because he/she may be ... I don't know it because I did not do it, it is those ones who do it but many of them call me and ask (uuuhm) (uuuhm) so I knew it from my colleagues [...] there is a teacher who is called XXX¹³, in the classroom he used to say, "anyone who is going to get a problem, my phone will be available, you are preparing the exam, call me (uuuhm) someone who will call me and I will help him/her, there is no problem". There is also another XXX teacher who is called XXX, yesterday, if you got a problem, in group you could say "call XXX and ask her about this question (uuuhm) (eeeh) or we may not have understood well, she should say 'for CATs14, revise up to this point' you could not agree on that, and he/she could call her and ask 'teacher, up to which point are we going to study? Then

 $^{^{13}}$ The teachers' names are omitted for ethical considerations and the subjects are deleted.

¹⁴ CATs means Continuous Assessment Tests

she should explain us and remind us (uuuhm) (eeeh) and say 'revise this and that and for the finals, you will study this (uuuhm) she could help us". (Nyamasheke: 281-302)

From the statement above, student teachers receive feedback via oral communication. As described by Nyamasheke, student teachers are not obliged to follow a certain protocol for asking or receiving a feedback. Once they face a problem, they know that they can call the teacher and get clarifications about it. According to other student teachers, oral communication seems to be used more often in regard to instructional feedback (Gatsibo: 281–295; Kirehe: 465–470; Kayonza: 77–80). In addition, teacher educators allow them to use various channels of communication to pose their questions including phone calls, emails or social media in case they face a problem while working on a given homework. In this way, as they said, they receive timely feedback which is helpful for their learning process (Rwamagana: 34–39; Gakenke: 111–118; Gatsibo: 159–164).

Shared role in the provision of feedback

Student teachers expressed that they receive instructional feedback from teacher educators, peers as well as themselves by making use of self-feedback.

"I may say like me in the first time of my arrival because I studied in French when I was in secondary school (hmm) it means that when we arrived in the beginning of my study it was a must to study in English (hmm) it means that it helped me because at the first time we studied communication skills (hmm) the lecturer who taught us used to correct us immediately (hmm) so I used to check if I am making a step forward (hmm) if I am coming from francophone system and going to Anglophone system (hmm) is there a step that I am making (hmm) that even when I am going to present (hmm) he/she instantly might tell me no (hmm) you should have said like this (hmm) that is not how this word is spelt (hmm) you spelt it in French (hmm) that used to help me and make me feel like I must put in more effort (hmm) If I made that presentation well (hmm) then he/she tells me these ones you did it well (hmm) you change these ones(hmm) this used to make me feel like there is where I am from and where I reached (hmm) that consequently helped me (hmm) it helped me at the beginning and provided me with strength (hmm) to know I am from there and I am here". (Nyanza: 319-333)

As per Nyanza for instance, teacher educators sometimes take the initiative to approach students showing learning problems for on time intervention. In case of assessment, student teachers pointed out that teacher educators do not only give them marks, but also discuss with them their strong points, weak points as well as ways of improving (Gakenke: 178-181). In case of group works, such teacher educators do not leave student teachers to struggle alone, but rather use them as an opportunity to support students' learning by providing feedback according to their questions and needs (Kicukiro: 76-84; Ngoma: 117-121). However, sometimes students prefer to first pose their questions to colleagues or try to do it themselves and bring them to the teacher educators in case they are not able to answer them or more explanations are needed. They additionally appreciate the fact that they are given freedom of expression which allows them to help one another and pose their questions to teacher educators easily once there is something difficult for them to understand (Nyaruguru: 33-40; Huye: 163-167; Kayonza: 76-80).

Criteria 3: Role of student teachers and teacher educators regarding instructional feedback

With respect to interviewed student teachers, both student teachers and teacher educators play a certain role when it comes to instructional feedback.

Student teachers as active partner in the process of giving and receiving feedback

The active role of both, student teachers and teacher educators seem a crucial point as the interviews show. One interviewee said for instance:

"Most of the times when he/she [the teacher–educator] gives us scripts we still have time to be taught by him / her something we failed and we cannot solve ourselves as the class we ask him / her we come back to it and then we seem to do its revision and after this continue to be able to correct some of the mistakes we made so that next time we will not repeat them". (Gasabo: 122–126)

The example above as well as other examples show how well active participation of student teachers is needed for making known their learning

problems, and thus receive feedback from the teacher educators (Nyarugenge: 83–86; Gakenke: 124–127). In accordance with what was said by interviewees, having this opportunity to ask for feedback was very helpful as they could get answers to questions obstructing their learning process, know how questions they failed in a given assessment would have been answered, and thus avoid making similar mistakes in the future (Gasabo: 136–140; Rubavu: 158–167). Ngoma expressed, for instance, that he would not have been able to successfully complete his project of making a juice from potatoes if he had not asked for feedback from his science teacher (264–279). Thus, as per interviews, it seems that some student teachers have even understood why their active participation in seeking for feedback is necessary for the effectiveness of their learning process (Burera: 178–187; Ngororero: 72–77).

In accordance with interviews, student teachers were not only active in seeking feedback at university, but also in schools while conducting their internship. One interviewee said for instance:

"... in the first week you are confused, and you ask how to fill other documents, we have studied it in class (uuhuum) but due to the lack of practice, it will be difficulty for you (uuhuum) but you get some difficulties in the first two weeks, you approach your fellow teachers in staff room, then you ask". (Kayonza: 327–331)

In addition to the example above, concerned student teachers expressed that they could take the initiative of asking for clarifications or support from cooperating teachers or school-based mentors in case of a problem that would interfere their teaching practice (Gakenke: 97–108; Rwamagana: 151–157; Nyaruguru: 405–414; Gisagara: 412–417 & 466–470; Gicumbi: 295–298). One interviewee stated that he would always prefer to ask for feedback in case of doubt during lesson preparation, and after teaching to know how they behave, and get advice for improving (Nyamagabe: 390–402). Here, Kayonza mentioned that she was encouraged to avoid teaching students a lesson she does not understand. She was rather advised to talk to the cooperating teachers to help her understand this lesson before teaching it in the classroom (Kayonza: 288–293).

In the interviews, lecturing was indicated as one of the teaching methods used by teacher educators (Musanze: 113–123; Kamonyi: 262–

269). They could be helped by the fact that they knew that they were allowed to indicate their questions, or where they needed support either at university or in schools during internship, and then get answers (Kamonyi: 272–279; Rubavu: 158–167).

Teacher educators as facilitators of learning

As per the example below, it is observable from interviews that teacher educators play an important role for the students to be active agent of their own learning:

"We ask him/her when we have problems and then he/she gives us more explanations until we understand (7 seconds) whoever has a problem if he/she asks it the teacher cannot refuse to answer it once you ask it is not possible (hmm) unless you do not ask it but whoever asks get an answer". (Nyarugenge: 83–86)

The above experience is a good example indicating how the quality of teachers' feedback in motivating student teachers to engage themselves in the process of requesting and receiving feedback. Other student teachers revealed that sometimes teacher educators addressed individual questions in the classroom for every present student teacher to benefit from his / her feedback (Rubavu: 163–167). One student teacher added the following experience:

"even that struggling student gets to present and that's where the teacher's help comes in because it is the good time for the teacher also to find out what the student needs as a help also (hmm) when we are together in groups as we expose our work it is the time when the teacher helps the student and others who have different questions in general (5 seconds) and when we work in groups the teacher is not just sitting instead he passes by each group to see how they are doing the work and asking us the issues we are having in groups (eeh) I think even there he looks whether all members of the groups are participating and it helps him and helps that one who is struggling when he arrives he sees how everyone is talking and giving ideas in group (hmm) therefore he helps him/her and the group so that they may perform well". (Nyamagabe: 173–182)

Student teachers pointed out that teacher educators make use of feedback to lead them to reflect on their learning as well as ways of improvement in case student teachers ask or teacher educators discover a gap or need in their learning process (Ngororero: 72–95; Musanze: 178–

191). As indicated above, teacher educators more often make use of group works to facilitate the learning process. Some of the teacher educators could not wait for the time for group presentations, but rather started guiding, and advising student teachers while still working on the given task. Here student teachers reported that they used this opportunity to ask their questions (Nyamagabe: 243–248; Musanze: 45–49). Besides, student teachers reported that they could succeed in their internship because of follow up accompanied with feedback from the cooperating teachers, and school-based mentors (Gisagara: 457–466; Huye: 275–286).

Role modelling by teacher educators

Role modelling was mentioned by interviewed student teachers as part of the role of teacher educators in regard to the provision of instructional feedback. One interviewed student teacher said for instance:

"... there is a teacher we have, a teacher who teaches, [...] he/she cannot blame you (uuuhmn) or challenge what you say (uuuhmn) he/she cannot discourage you (uuuhmn) he/she writes whatever you tell him/her (uuuhmn) he/she writes whatever views you tell him (uuuhmn) he/she may ... in general he/she understands you (uuuhmn) that one helps us to be confident (uuuhmn) if he/she asks a question, it helps me to become confident you stand up majestically (uuuhmn) without fear (uuuhmn) because you know that there will be no problem if you fail it (uuuhmn) he/she is not going to punish me (uuuhmn) but there is another whom you may fear to give the wrong answer he/she will not understand me he/she will not understand me in case I give wrong answers (uuuhmn) rather he/she is going to insult me (uuuhmn) but that teacher, you get confidence and say as he/she asks this question, let me stand up (uuuhmn) and give my point of view (uuuhmn) then you stand up and you will find that there is no problem rather he/she is happy with you (uuuhmn) he/she gets what you say and then he/she will say, okay, in order to make what you said a clear answer (uuuhmn) you need this and that (uuuhmn) your English has this and that mistake (uuuhmn) you can correct in this way (uuuhmn) then you become confident, when a person corrects you you say ok, I used to say like this but now I am going to say it in this way (uuuhmn) instead of threatening you, he/she tells what you should do (uuuhmn) so, I, as a teacher, I say okay, when I will be teaching in secondary, the level of English of secondary school students (uuuhmn) sometimes it is very low (uuuhmn) they often make mistakes in their English, yeah, so I can (aaah) if the teacher helps me in talking so I will do the same when I

will be teaching (uuuhmn) so as to encourage him/her in his/her studies (uuuhmn) if he/she says something wrong (uuuhmn) I will get it but after I will tell him/her that he/she should do it in this way (uuuhmn) without threatening him/her". (Kirehe: 495–525)

The above statement is a good example of how student teachers learn not only from teacher educators' feedback about how to improve their learning process, but also how to give feedback to their own students. Other examples show how the concerned student teachers desire to imitate their teacher educators after seeing how they were helped by their feedback. Here, they consider these teacher educators as their role models in supporting their learners to succeed well by using effective feedback, and not by giving them free marks (Gisagara: 105-119 & 121-123; Ruhango: 27-33). Student teachers declared that they intended to treat their students in the same way as they were treated by their teacher educators at the university for the benefit of their own students, by creating a good learning climate that welcomes students' mistakes and giving students timely feedback (Nyamagabe: 219-225; Gakenke: 132-146; Nyanza: 300-313 & 680-690). Other student teachers see, as a very good examples for someone being prepared to become a teacher, teacher educators who welcome students' questions, approach them during assignment, and support them where they have problems (Bugesera: 129-141; Kirehe: 476-483 & 495-525; Gatsibo: 152-164). For other students, teacher educators considered as role models use a special methodology that put student teachers in conducive learning environment in which they feel free to speak out their ideas because of being sure that even their mistakes are tolerated (Nyamagabe: 263-269; Rusizi: 210-219).

Criteria 4: Requirements for getting or giving instructional feedback

In accordance with interviews, student teachers expressed that instructional feedback were given under some circumstances.

Feedback as a response to student teachers request or needs identified by the teacher educators

Interviews show that instructional feedback was given upon student teachers' request or needs identified by the teacher educators. One interviewee said for instance:

"... when we correct them ourselves the lecturer it means that we ask him/her things we do not understand so we ask him/her (hmm) there are times we correct and we reach particular questions and all of us fail to answer so in that case of correcting questions difficult for us that is when we ask him/her whether (hmm) the corrections we did are accurate and then he/she support us". (Huye: 163–167)

According to criteria 3 above, student teachers play an active role in regard to instructional feedback. The above example supports this idea, and more especially show how these student teachers consider learning as their own responsibility, and more especially in regard to asking for feedback. In addition to this, student teachers stated that teacher educators sometimes keep examination papers of students who failed in order to discuss with them about their problems and reflect together on ways for improvement (Burera: 178–191; Musanze: 47–49). This was mentioned in other interviews where student teachers testified to have been helped by teacher educators who adapted their teaching after identifying their problems (Ruhango: 112–119). As far as teaching practice is concerned, interviews show that student teachers sometimes requested also for feedback:

"When the lesson ends you ask him/her how was the lesson where can I improve where can I correct". (Nyaruguru: 392–393)

From the experience shared during interviews, some student teachers started asking for feedback during the observation week, during the beginning of internship. Here, cooperating teachers and / or schools-based mentors could be aware of their needs, or difficulties, and then help them to overcome them with appropriate feedback (Rubavu: 268–277; Nyamagabe: 362–374; Nyagatare: 210–228). Feedback was also provided upon needs identified by cooperating teachers. As mentioned by inter-

viewees, the presence of cooperating teachers in the classroom was help-ful as they could identify easily student teachers' strengths and weaknesses and then provide support accordingly (Nyanza: 401–409).

Transparency regarding teacher educators' availability

In accordance with interviews, teacher educators let student teachers know their availability for use in case of need. The statement below is an example:

"he could advise you to ask the classmates who are good at the lessons or say 'come to ask me (huuum) I am available at this and that time". (Burera: 186–188)

As indicated by student teachers, the transparency of teacher educators about their availability for giving feedback was very helpful to student teachers. Sometimes, teacher educators could give common feedback in the classroom, and invite identified student teachers in their office for additional feedback or encourage them to make use of peer feedback (Burera: 156–159). Another student emphasized the useful of this transparency in the following words:

"he/she does not give us the assignment only; he/she must also give the feedback in the class. (huuum) he/she may give you it and find some difficulties as a student (huuum) there are other hours after class when you can go and consult him/her, if he/she tells you that he/she is available. (huuum) you can understand that if you want to consult him/her and tells you that he/she is available (huuum) you converse and you tell him/her the challenge you met and then after some explanations you keep working (huuum) though he/she cannot tell you everything, it helps you (huuum) you just work and when you have any difficulty, you ask for his/her assistance (huuum) and then you keep working (huuum) on the side of a teacher, you can see that it is a help for you (huuum). he/she gives the assignment to be done (huuum) but in case if you are not able to do it (huuum) you will not sit and wait until you give an incomplete work (huuum) it is good to consult him/her in the middle of the work before continuing (huuum) in case you have a challenge (huuum) so, you can understand that it is something good if this time is provided". (Gisagara: 90–103)

Criteria 5: Student teachers' feelings and positions about instructional feedback

In the interviews, student teachers also shared their feelings and positions about their experiences on feedback at university.

Supportive relationship

According to interviews, student teachers described having a positive relationship while receiving instructional feedback. One interviewee said for instance:

"... there are teachers that help you when you are mistaken without showing you that you did a stupid thing (hmm) but rather show you how to correct your mistakes and make you understand something that gets you back on the right track in a good way and makes you realise that the person is indeed helpful and one that corrects you but in a good way". (Nyamagabe: 251–255)

The above example is one of many examples that indicate how student teachers appreciate receiving instructional feedback. Knowing that positive feedback will be given even when they make mistakes makes them feel comfortable in the long run to approach teacher educators for soliciting feedback (Kanombe: 47–53 & 149–152; Burera: 97–102; Kamonyi: 525–541; Rubavu: 127–132). They mostly like the way teacher educators not only guide them while they are working on group assignment, but also supplement ideas presented by each group (Nyaruguru: 51–58; Nyamagabe: 243–248). They find this supportive for their learning process, and professional development, especially the fact that teacher educators who use instructional feedback do not humiliate them in front of the learners but wait until the lesson ends (Kayonza: 305–309; Nyamagabe: 420–424). These student teachers added that for such feedback to be effective, it should be provided on time, not only as marks, but also with comments to let students know what to improve and how:

"... feedback is a consequence it can be defined as something that returns in a positive way (huuum) this means that if I presents a certain question and don't get the answers from the teacher (huuum) if he/she does not give me the consequence or do anything in return (huuum) if he/she cannot give me power to listen to him / her and then answer me, he/she is not providing what I expected to

get from him/her (huuum) so the feedback, in Kinyarwanda, can be explained as the answer to the question or anything that you might have asked depending on the questions you have (huuum) and then you get the answer which is the feedback (huuum) from what you have asked". (Burera: 214–219)

In addition to this, the same student teacher stated the following:

"... in my opinion (huuum) personally, I wish those answers or feedback could be provided on time (huuum) in addition to this, it could be given in the best way this means that they could not send the answers they may send the answers yet they have used unfamiliar words in English (huuum) so he/she could come and tell you (huuum) the way it was used (huuum) so as to let the teacher go with knowledge he/she could get from the question he/she asked ...". (Burera: 226–231)

Feedback as an integral part of the teaching and learning process

Interviewees expressed that feedback which is given in a positive way becomes a learning opportunity for student teachers:

"I think I have said what is on positive side (uhuum). To give the assignment and provide time to ask him/her the explanations (uhuum) it is something that can stimulate the student to study. Brief, it can motivate the student (uhuum) and he/she feels not isolated in his/her learning process but he/she must know that there is a teacher who must help her/him in what he/she does not understand". (Gisagara: 200–205).

According to Gisagara, it is better when assignments are followed by feedback for student teachers to feel supported in their learning process. Other student teachers shared the same opinion (Burera: 106–110 & 214–219). However, Burera added that this feedback is more helpful when it is provided on time and understandable (Burera: 226–232). For Rubavu, he thinks that student teachers should take the lead of soliciting feedback (153–167). It appears from interviews that some student teachers have also understood the importance of providing feedback to their own students (Kayonza: 473–488). According to the statement below, instructional feedback helps student teachers to improve their teaching practice as well:

"... the lecturers of where we were coming from at the university visited us (hmm) and followed the way we teach (hmm) after following us (hmm) we sat and they brought us together (hmm) and talked to us (hmm) on what they ob-

served (hmm) what they appreciated (hmm) and what was going wrong and together we would take measures on what to do to improve". (Nyamagabe: 420–424)

This way of putting them together, as Nyamagabe said, allows them to learn from the strengths, and weaknesses of others. It allows student teachers to regularly assess their learning progress, and then make visible improvement.

Summary of the type

As a conclusion, findings show that instructional feedback is communicated on time using various ways to help student teachers improve their learning process. Student teachers are involved in the process of feedback, and teacher educators are seen as role models. Student teachers feel supported and consider feedback as a learning opportunity.

4.4 Summary of results

The analysis of data, especially the abduction process, show that student teachers who are studying in Rwandan HLIs experience three types of feedback namely administrative feedback, correctional feedback, and instructional feedback. The three types had been described according to five criteria, developed by the empirical material, as aim of the feedback, communication process, role played by student teachers and teacher educators, requirement for giving or receiving feedback, and student teachers' positions about feedback.

According to the findings, administrative feedback focuses on the communication of grades, and this is done for fulfilling academic and administrative formalities, and not for student teachers' learning. Findings show that student teachers face the same experiences as far as teaching practices are concerned. In such cases student teachers, while in internship, focus on getting marks more than what it is meant for. This feedback is communicated using formal communication channels either by teachers or the university administration. As student teachers expressed, administrative feedback is communicated when student teachers 'marks are available or as a response to student teachers' ap-

peal, when they are not satisfied with received marks. However, as they said, student teachers have to wait longer to know their marks when it is too late for them to learn from this feedback. What is more, student teachers are not involved in the process of administrative feedback. They expressed it as a one-way communication process, which, as result, create an asymmetric relationship between student teachers and teacher educators. An ambivalent situation where some student teachers see marks are satisfied with the publication of marks, and other student teachers see marks not enough for them to learn from. Student teachers, however, wish to get a good example from teacher educators in regard to how effective feedback to their students should look like and be given.

As far as correctional feedback is concerned, findings show that the focus is put on informing student teachers their mistakes or weaknesses. For teaching practice, teacher educators emphasize on identifying whether student teachers make a mistake and give feedback for student teacher to improve. However, as per interviewees, showing what the student teachers did well, an aspect of constructive feedback, is missing. Teacher educators give the feedback on time or with delay. Student teachers are passive in the process of feedback; their role is to listen to what teacher educators tell them. The fact that correctional feedback is focused on student teachers' weaknesses or mistakes, as they said, student teachers mentioned that they do not appreciate the way it is given, especially when teacher educators blame them even for minor mistakes. As per them, such feedback should be avoided as it leads to a power relationship between teacher educators and student teachers. In such cases, student teachers do not see teacher educators as role models. In accordance with interviews, self and peer feedback are used as alternatives to the shock created by correctional feedback.

With regard to instructional feedback, findings show that it is communicated on time using various ways to help student teachers improve their learning process. Problems that would hinder their learning process are identified and solved on time. Student teachers are involved in the process of feedback. As student teacher expressed, the positive climate in which instructional feedback is given helps them improve their

teaching practice and learn how an effective teaching and learning process should look like. Student teachers feel supported and consider feedback as a learning opportunity. They think that a good learning climate where students' mistakes are welcomed and addressed in a positive way is necessary for students to benefit more from feedback on their learning process. In accordance with their experiences, these student teachers seem to have understood how they were helped by getting answers to their questions in an appropriate way, and on time, and then plan to do the same once in their own classes as teachers. Looking at the different statements however, it seems that student teachers learn implicitly from teacher educators' experiences. There was no interviewee, who expressed that teacher educators talk about feedback in order to use explicitly role modelling for student teachers to learn from their good examples as far as provision of feedback is concerned.

The following table (see table 3.) summarizes the typology in accordance to the different criteria.

Table 3: Typology of feedback based on the experiences of student teachers in Rwanda

	Types	Administrative feedback	Correctional feedback	Instructional feedback
Criteria	Sub- criteria			
Aim	Purpose	Communication of grades for fulfilment of evaluation re- ports and ad- ministrative formalities Use of feedback for financial clearance	Deficit oriented communication, indicating weaknesses of students	Learning oriented Clarifying students misunderstanding in learning Initiating dialogue Enhancing student teacher relationship Enhancing responsibility Initiating students' reflective teaching
	Content	Focus on outputs by grading marks used as cumulative marks	Focus on stu- dents' mistakes	Focus on learning process connected to acquisition of competences Focus on strategies for improving the learning and teaching practice
Communication	Time	Immediate or delate only by grades No common regulations Limited timeframe for complaints	Immediate or delayed by cri- tique	Immediate or timely Continuous for feed up and feed- forward (Culture of learning)

	Orientation and chan- nel	Limited access Formal com- munication	One-way com- munication without dia- logue	Multiple ways of communication, including infor- mal ways
	Provider / Source	Teacher educators Administration	Teacher educators	Teacher educators Peers / Student teachers them- selves
Role	Student teachers	Passive / Not agent of his own learning Check their marks on the used communi- cation media Make formal appeal Unguided Self- feedback	Listening, passive role	Active agent of their own learning Take the responsibility of asking feedback Indicate their questions or where they need support
	Teacher educators	Display marks Remark stu- dents' examina- tion papers Members of deliberation committee	Accusatory Negative reinforcement Teacher educators not seen as role model	Facilitators of learning Role model for future career as teachers Helpful and posi- tive reinforcement
Requirement		Availability of students' marks Submission of the appeal	Students' mis- takes	Upon needs identified by the teacher or students' request Transparency regarding teachers' availability

Students Teachers positions	Feeling	Asymmetric relationship between teachers and students Students feel uncertain about their learning progress Nontransparency regarding teachers' availability Some students feel discriminated	Students feel blamed Fear to ask questions to teachers Making use of peer feedback Asymmetric relationship between teach- ers and students	Supportive relationship Symmetric relationship Students feel comfortable
	Conception	Marks as enough for feedback Marks alone tells nothing Late feedback to be avoided Feedback as something that follows tests or exam Limited feed- back on teach- ing practice Good role mod- el by teacher educators	Make use of self and peer feed- back	Feedback as an integral part of the teaching and learning process Feedback as something that enhances teacher-student relation-ship Feedback as a learning opportunity

Source: Primary data, 2019

5 Summary of findings and discussion

This study aimed at analysing the experiences of student teachers in Rwanda in regard to feedback. To achieve this, a qualitative approach with semi-structured interviews was used (see chapter 3), and related findings had been described in the previous chapter (see chapter 4). In this chapter, I first summarize the main findings in relation to the research questions (see 5.1). Then I will discuss the findings in the next section (see 5.2) in the light of the discourse on the contribution of feedback to educational quality, the role of feedback for teacher education and the professionalization of teachers, and to its role of the development of the society.

5.1 Summary of findings

As indicated in chapter 1.3, this study aims at answering the following research question: "How does teacher education look like regarding feedback in the Rwandan context?". This research question was divided into four sub-questions namely: (1) what kind of learning situation do student teachers face concerning feedback in the Rwandan context? (2) What understandings do student teachers have on feedback they receive from their teachers at university? (3) What kind of feedback do student teachers get? (4) How do student teachers see the contribution of feedback on the quality of teaching and learning process? To answer these research questions, a qualitative approach was used (see chap. 3.1). In this regard, semi-structured interviews (see chap. 3.2) with 32 student teachers selected using theoretical sampling from higher learning institutions in Rwanda (see chap. 3.3) were done in total. Individual portraits for all interviews are elaborated to illustrate their understanding in regard to the purpose of this study (see chap. 4.1). These interviews have been analysed using a deductive-inductive approach (see chap. 3.4.3), and by the abduction process (see chap. 3.4.4 and chap. 4.2). By comparing the interviews, the following criteria were identified: aim of the given feedback, communication of feedback, the role played by the teacher educators as well as student teachers in the process of giving and receiving the feedback, the requirement for giving and receiving feedback, and the student teachers' positions about the given or received feedback (see chap. 4.2). With these criteria, three types of feedback namely (1) instructional feedback, (2) correctional feedback, and (3) administrative feedback were generated from the data.

In this section, the main findings of this research are presented. As described below, they are described in five aspects such as (1) student teachers experience different forms of feedback (2) student teachers have divergent understandings of feedback, (3) delayed feedback leads to increased uncertainty among students, (4) communication of feedback creates different forms of relationships between student teachers and teacher educators, (5) student teachers learn implicitly from teacher educators how to provide feedback, and (6) missing common standards in internships.

5.1.1 Student teachers experience different forms of feedback

This study shows that student teachers in the Rwandan context experience a wide range of feedback. They receive feedback in the classroom during the teaching and learning process, as a response to given assignment or assessment, and/or during teaching practice mainly done in the form of internship in schools. According to conducted interviews, every student teacher receives feedback whether appropriate or not appropriate. Referring to the findings presented in chapter 4 as well as to related summary at the end of this chapter (see chapter 4.4), the typology of feedback that emerged from the empirical data of this research via the abduction process shows that student teachers in Rwanda have experiences to three types of feedback namely instructional feedback, correctional feedback, and administrative feedback.

In regard to administrative feedback, it is given in the form of marks, communicated most of the time as cumulative marks (see for instance Nyaruguru: 167–174; Kanombe: 103–105; Muhanga: 482–485). More emphasis is put on communicating obtained grades either individually or collectively. As per interviewed student teachers, teacher educators, in these cases, provide a number of assignments, and correct

them but sometimes communicate all the marks together when it is too late for student teachers to learn from them. These marks are, as mentioned by interviews, published for administrative purposes via formal structures established by the institutions such as universities' online portal, emails, notice board, etc (see for instance Kamonyi: 76–80; Nyagatare: 365–371; Bugesera: 44–48; Karongi: 104–107; Nyamagabe: 148–159).

Concerning correctional feedback, the focus is put on informing student teachers their mistakes or weaknesses. Feedback is given on time or with delay. Student teachers are passive in the process of feedback; their role is to listen to what teacher educators tell them. When it comes to correctional feedback, the motivational aspect of constructive feedback is ignored (Kamonyi: 638–644; Ruhango: 256–260). Student teachers do not appreciate the way it is given, especially when teacher educators blame them even for minor mistakes. In accordance with interviews, student teachers decide to keep quiet or make use of self and peer feedback as a way of avoiding being blamed or frustrated by teacher educators (Ngoma: 166–177; Rubavu: 63–67). As per student teachers, such feedback should be avoided as it leads to a power relationship between them and the teacher educators (Rubavu: 132–136; Kirehe: 267–272; Ngoma: 199–205; Kanombe. 157–166), and they do not see teacher educators as role models (Nyamasheke: 533–538).

As for instructional feedback, findings of this research show that in this case feedback is given for learning purpose. Student teachers say that problems that would hinder their learning process are identified and solved on time by teacher educators (see for instance Kamonyi: 90–92, Rulindo: 118–123). They appreciate the way teacher educators have dialogue with them sometimes in their office to discuss on their learning problems and reflect together on strategies to be undertaken for further improvement (see for instance Burera: 162–173; Rubavu: 113–119 & 184–194). Among the three types of feedback, instructional feedback appears to be a good example that contributes to the effective preparation of student teachers in Rwanda.

5.1.2 Student teachers have divergent understandings of feedback

According to conducted interviews, it becomes clear that student teachers in Rwandan have different understandings when it comes to feedback. In line with the shared experiences, the understanding of feedback is summarized into three aspects such as understanding limited to communication of marks, feedback understood as learning opportunity, and no clear understanding about feedback.

In regard to an understanding of feedback limited to communication of marks (see for instance Rwamagana: 481–486), student teachers think that feedback means communication of marks to students, but, with different points of views. Some student teachers see marks as enough for feedback (see for instance Gisagara: 326-328; Gicumbi: 145-152; Musanze: 227-236 & 250-257; Ngororero: 155-156; Nyabihu: 305-308), other student teachers see marks alone not enough to give them information they can use for improving their learning progress. For them, marks alone as feedback can be a source of motivation or demotivation (see for instance Muhanga: 566-569). These student teachers see providing feedback in the form of marks becoming like a culture, which - as they say - should be avoided as it leads student teachers to question the transparency of assessment systems in their institutions (see for instance Ruhango: 164-168; Kayonza: 440-469; Kicukiro: 292-301 & 318-325; Kamonyi: 97-107). Here, two different conceptions emerged from interviews. Some student teachers say that teacher educators should provide descriptive feedback in addition to marks, yet other student teachers say that it should be up to student teachers to ask this additional feedback from the teacher educators (see for instance Gakenke: 312-315 & Rubavu: 171-176). From explanations given by student teachers, it becomes clear that they understand that good feedback has to be given on time to allow students know and correct their mistakes (see for instance Rulindo: 262-282).

Student teachers who see feedback as learning opportunity, they express it as an integral part of the teaching and learning process during the classroom activities and internship, especially when it is constructive. Here, these student teachers say that they should take the lead of

soliciting the feedback, without waiting for the teacher educators to give it (see for instance Gisagara: 200–205; Burera: 226–232; Rubavu: 153–167).

There are student teachers who could not tell clearly the meaning of feedback, but who understand its importance (see for instance Musanze: 236–245). These student teachers understand that feedback can be positive or negative, and that joint efforts, and collaboration between teachers are needed for the feedback to be effective and beneficial to students (see for instance Rutsiro: 176–194; Gatsibo: 237–238). In this category, there is another group of student teachers who simply express feedback as a component of the communication process (see for instance Kirehe 259–267; Rwamagana: 471–480). Given this differing understanding of feedback, this finding shows the necessity of investigating further how feedback is reflected in teacher education programme especially on the side of content knowledge.

5.1.3 Delayed feedback leads to increased uncertainty among student teachers

Interviews conducted in this study reveal that, in some cases, student teachers receive delayed feedback, and that this kind of feedback leads to increased uncertainty. This concerns especially administrative feedback and correctional feedback. Interviewed student teachers pointed out that no information about their performances leads to a lack of orientation. They cannot know whether they have been successful or not. They speculate until the results are released and do not get the feedback when they need it, and thus become uncertain about their learning process (see for instance Nyanza: 287-295; Kicukiro: 305-314; Kigali: 167-171). They perceive formative assessment as used for administrative purpose instead of being used for learning purpose. Because of delayed feedback, student teachers sometimes found themselves in cumulative failures, yet they would have corrected themselves in case feedback was communicated on time. They express delayed feedback as a barrier to their learning process. Some student teachers see delayed feedback as a culture being constructed in some universities (see for instance Gasabo: 61-70;

Rwamagana: 112–113). In the interviews, they associate the provision of delayed feedback with different reasons like big class size and heavy workload of teacher educators. However, some student teachers think that feedback is delayed because of underestimating its importance in learning process. This empirical finding shows that the aspect of time should be reflected to make sure that student teachers from Rwanda benefit from immediate feedback, and thus effective preparation.

5.1.4 Communication of feedback creates different forms of relationships between student teachers and teacher educators

This finding shows that depending on the type of feedback, a certain form of relationship between student teachers and the teacher educators is created. It either establishes an asymmetric relationship or a symmetric relationship between the student teachers and teacher educators. As emerging from the analysis of empirical data, administrative and correctional feedback lead to asymmetric relationships. Experiences shared by student teachers show delayed feedback as a culture being constructed by some teacher educators. Student teachers see such situation as something denying them the opportunity of learning from regular feedback. They perceive such feedback as establishing a power relationship between them and the teacher educators (see for instance Nyaruguru: 224-231; Kicukiro: 241-246; Gatsibo: 120-123). For correctional feedback, interviewed student teachers experience an asymmetric relationship caused by unbalanced monologue feedback where teacher educators focus more on telling them their mistakes and weaknesses. They see this kind of feedback discouraging and establishing a distance between them and teacher educators as it is given without dialogue. Student teachers feel sometimes blamed, brutalized, and do not like the fact that their mistakes are not welcomed. Student teachers are expected to listen to teacher educators' comments, and thus become passive partners in the process of giving and receiving feedback. This kind of feedback is experienced both in the classroom and during teaching practices. In such cases, student teachers do not see the teacher educators as their role models (see for instance Nyamasheke: 370–377 & 404–407; Nyamagabe: 256–262).

Concerning instructional feedback, student teachers experience a symmetric relationship. They say that teacher educators take time to listen to their questions and problems, and together look for solutions. Student teachers who have particular problems are identified, and then given additional support. As mentioned during interviews, multiple ways including easy going ones are used to communicate the feedback on time and continuously for feed up and feedforward something that leads to a culture of learning. Student teachers are given opportunities to ask questions which are answered in a dialogue manner (see for instance Nyamasheke: 281-302; Rwamagana: 34-39; Gakenke: 111-118; Gatsibo: 159-164). With this, student teachers feel supported and have positive relationship with the teacher educators. They understand the importance of receiving feedback. Even when they make mistakes, they feel comfortable as they know that positive feedback will be given. Student teachers testified to have learnt from this kind of feedback the importance of actively involving students in the process of giving and receiving feedback, thus, establishing a good learning climate and reinforcing good relationship in the classroom. Besides, student teachers see, in this case, feedback very helpful in learning how to teach, especially breaking misconceptions they had about teaching (see for instance Nyamagabe: 390-402). This result demonstrates that communication process of feedback plays an important role in shaping the pedagogical relationship between student teachers and teacher educators.

5.1.5 Student teachers learn implicitly from teacher educators how to provide feedback

Results of this study show that depending on how the feedback is given, student teachers learn how they will give it to their own students. As they expressed in the interviews, they either take teacher educators as their role models or not. For the case of instructional feedback, student teachers plan to imitate their teacher educators, by creating a supportive relationship and good learning climate which will make their students

feel comfortable to learn from and where their mistakes will be welcomed and used as learning opportunities (see for instance Kirehe: 495-525; Gisagara: 105-119 & 121-123; Ruhango: 27-33; Gisagara: 105-119 & 121-123; Ruhango: 27-33). In the case of correctional feedback and administrative feedback, a dichotomy is observed. On one side, student teachers, who takes the provision of marks as enough for feedback, plan to do the same for their own students (see for instance Kamonyi: 708-711; Musanze: 250-257; Nyanza: 703-711). On the other side, student teachers say that marks alone as feedback tell nothing. In this case, they wish to be shown good examples about feedback and how it should effectively be given to students. These student teachers say that good training is needed for someone to become a good teacher (see for instance Gasabo: 210-218; Nyarugenge: 265-268; Nyanza: 671-675). Some student teachers expressed that once they will be teachers it will be difficult for them to provide helpful feedback to their students because they have only been given marks as feedback or recognized blames instead of encouraging feedback. This result show that student teachers in Rwanda need explicit role modelling opportunities about providing effective feedback.

5.1.6 Missing common standards in internships

This study shows that student teachers are exposed to learning to teach practically via microteaching and internship. However, as per interviews, higher learning institutions do not do it in the same way. They all have internship, but when it comes to microteaching, some do it and others do not do it. The length of internship and how often it is done differ from one institution to the other. Regarding feedback, findings show that student teachers receive limited visits by university teachers, and in most cases, for providing or receiving marks (see for instance Muhanga: 142–146; Rubavu: 321–329). This is more in line with administrative feedback, where the findings of this study show that fulfilling formal aspects is in some cases given more importance than acquisition of competences. This result shows that there is need for HLIs to reflect on

the place given to teaching practice during initial teacher training in Rwanda and more especially on the role of feedback in this process.

5.2 Discussion

In this section, I discuss findings of my study in regard to the context and state of research as described respectively in chapter one and chapter two. This is organized in a way that I first discuss feedback and its meaning to educational quality in the perspective of student teachers (chapter 5.2.1). Here, the following aspects are highlighted. Feedback as an administrative function, feedback and student teacher relationship, delayed feedback and its implications to education quality, communication channels and quality of feedback, feedback and non-violent pedagogy, and feedback as a learning opportunity. Second, I talk about feedback environment and teacher professionalism (chapter 5.2.3). In this section, the focus is put on the following: feedback environment and the quality of learning to teach, feedback and implicit role modelling in teacher education, feedback as a pedagogical approach in teacher education, and feedback and professionalisation of teachers in the globalizing world. Third, the discussion is focussed on feedback and development in the society, especially on the types of feedback and its meaning to school leadership styles, feedback and pedagogy for peace building in postconflicts societies, and feedback and communication process in a globalized world (chapter 5.2.3).

5.2.1 Feedback and its meaning to educational quality in the perspective of student teachers

According to the findings of this study presented in chapter 4, and the corresponding summary given above in section 5.1, student teachers in Rwanda have experiences to three different types of feedback namely (1) administrative feedback, (2) correctional feedback, and (3) instructional feedback. In this section, I discuss these types in relation to the discourse on teacher education, educational quality and feedback.

Administrative dimension of feedback and educational quality

As per this study, findings show that administrative feedback is given mainly for the fulfilment of evaluation report and administrative formalities. Feedback is given in the form of marks communicated to students via formal communication channels like the university notice board or online portal. Even though student teachers would wish to get detailed timely feedback, only marks are communicated to students and more often with delay, and all the marks combined for both formative assessment and summative assessment. Literature shows that marks is one form of feedback that was commonly given to students in the traditional time, but which continues to be popular also in the 21st century (Hounsell 2008). This kind of feedback does not, however, more often leads to suitable results. It may result into confusion on the side of students, because it is more evaluative than being descriptive (Krogull et al 2014, p. 75;). Given the way it is delivered to student teachers; administrative feedback can be compared to "one of the persisting narratives in higher education whereby especially written feedback is provided on a 'take it or leave it'. The marker's perspective is the only valid reality, and that further discussion is unnecessary" (Downden, Pittaway, Yost, & McCarthy 2013, p. 11). From leading students to make use of given feedback, teachers are advised to start by providing comments separately from the grades (Carless 2006, p. 23). Reason for this is that students need to benefit from progressive feedback as much as possible without having to wait until the grades are available. Literature show that to be useful to students, feedback needs to be effectively communicated and its understanding needs to be ensured (Krogull et al. 2014, p. 75; Hatziapostolou & Paraskakis 2010, p. 113). In this regard, teachers are advised to make sure that feedback is constructive, that is, clear, well timed, descriptive, specific, encouraging, well balanced between students' weaknesses and suggestions for improvement in a way that meets their needs, and specific (see Hamid & Mahmood 2010, p. 225-226, Hattie & Timperley 2007, p. 104; Hesketh & Laidlaw 2002, p. 246).

This is also emphasized on in different educational policies in Rwanda. HLIs are mandated to provide quality education, making sure

that students are well supported to achieve their potentials (Republic of Rwanda 2007b). In regard to feedback, these policies indicate its necessity for supporting students in their learning process (Republic of Rwanda 2007a, 2007b, 2007c, 2007d). The general academic regulations governing all HLIS in Rwanda, for instance, recommend that grades along with feedback should be provided to students on-time before any other assignment is given. From these policies, the focus is not only put on timely feedback, but also on its role in the learning process. This is more emphasized in the TLA policy which says that feedback should be used for helping students to know their learning progress and remedial actions that are needed (Republic of Rwanda 2007b).

In the study at hand, it appears that when feedback focuses more on marks, student teachers miss the opportunity to learn from effective feedback. This creates a misconception that feedback is only about marks. In the educational discourse, teachers are perceived as the cornerstone of any education system something that explains why a special attention is needed for ensuring that they are well prepared (Beavers 2009), especially in regard to giving effective feedback.

Feedback and student teacher relationship

Literature stipulates that in the process of feedback, "the sender and receiver of feedback must work as allies" (Schartel 2012, p. 81). In this study, findings show that depending on the way feedback is given, feedback may lead to different forms of student teacher relationships which may be either be perceived as positive or negative.

For the case of administrative feedback, Student teachers indicated that when it is given there is no face-to-face communication of the marks, they have rather to wait for marks to be posted. They express this as a one-way communication process, which as a result leads to an asymmetric relationship between student teachers and teacher educators. This kind of feedback delivered "in the form of one-way messages" is "mainly conceptualised as a transmission process" (Nicol & Macfarlane-Dick 2006, p. 200), and such feedback is perceived as discouraging (Tan et al. 2017). Tan et al. insist on the participative model in teacher

education. For them, student teachers have to be active agent in the learning process. According to these authors, "the traditional power disparity" between teacher educators and student teachers should be replaced by "*a* two-way interactive learning process based on discussing and sharing of values, knowledge, skills, feelings and behaviours" (Tan et al. 2017, p. 62–63). Furthermore, scholars reports communication as an innate human character (Ruesch & Bateson 1951, p. 7; Watzlawick & Beavin 1967, p. 5; Lutterer 2007, p. 2). Because, as per the Watzlawick's first axiom of the formalized theory of human communication, communication cannot be avoided (Watzlawick, Beavin & Jackson 1967, p. 51).

With a correctional feedback, findings of this study show that student teachers fear to answer, ask questions or to give their arguments fearing to be blamed by teacher educators. They feel discouraged to make active participation in the classroom. This is how it was in "the traditional Rwandese concept of teaching where students' mistakes were not welcomed. A negative feedback humiliating students who made mistakes was given. Making a mistake was taken as a sin in front of the teacher and even classmates. Fearing to be blamed, students preferred to keep quiet in the classroom (Krogull et al 2014, p. 49). The same feeling is highlighted in a research on perceptions of student teachers on written feedback at a regional Australian university. This finding is also in line with the results form a study on student teachers' emotional responses to feedback. In this study, some interviewed student teachers see unhelpful or destructive feedback as "just plain harsh" or "a personal attack" (Dowden et al. 2013, p. 8 -9). Student teachers who were interviewed in this study are trained to become teachers in secondary school teachers (see 1.1.2). A study conducted in Rwandan schools shows that many secondary school teachers exercise a top-down relationship with their students. This study indicates that "teachers are still very much seen as figures of authority and are therefore rarely challenged by their students" (Rubagiza 2016, p 220-221), yet literature show that for feedback to be effective, it is necessary to build strong dialogue between students and teachers (Nicol 2010, p. 513; Sadler 2010, p. 539-542; Nicol & Macfarlane-Dick 2006, p. 210). In addition, dialogue is indicated as a

strategy to get students become active in the process of giving and receiving feedback (Bloxham & Campbell 2010; Ellis & Loughland 2017). To eradicate this persisting challenge, literature shows that the change should start in the way teachers are prepared during initial teacher training as "without high-quality initial training, teachers largely teach the way they were taught. It is difficult for them to adapt and adopt learnercentered pedagogy" (Vavrus, Thomas & Bartlett 2011, p. 11). However, as it can be viewed from the characteristics of correctional feedback, the problem is that the conception of traditional teaching persists, even more in the teacher education programme (Niyibizi 2021, p. 88-89). And knowing the place of role modelling in teacher education (Niyibizi 2021, p. 100; Lunenberg 2007, p. 586), the example these student teachers are being given does not correlate with the needs of quality education. Yet, literature shows that "method of dealing with mistakes in class must change so that mistakes are seen natural to the learning process and an important stepping stone for further learning". All students should be helped in their learning process by an effective individual support (Krogull et al. 2014, p. 59). This is also the wish of student teachers interviewed in this study. These student teachers pointed out that feedback that leads students to lose self-confidence and motivation should be avoided. Similarly research underlines to see mistakes as "a learning resource", and to use them as a learning opportunity for students (Krogull et al. 2014, p. 46-47).

According to this study, instructional feedback is another type of feedback experienced by student teachers learning in Rwandan HLIs. As per interviews, this feedback is given to student teachers for learning purpose. Student teachers appreciate the fact that teacher educators allow them to ask questions. Student teachers who show particular problems get individual support from the teacher educators. They call them in their office to discuss on their learning problems, and strategies to be used for improving their performances. This is in line with the purpose of feedback as highlighted by Hattie and Timperley (2007). According to them, feedback should aim at improving the quality of learning, guiding students to reach desired competences (Hattie & Timperley 2007, p. 86).

As student teachers explained during interviews, they feel comfortable to ask for feedback once given a challenging task. They pose their questions and make discussions with teachers, which help them continue working on the given task and achieve expected results. The importance of feedback in regard to challenging task is also highlighted by Hattie. He indicates to which extent challenging students is important for increasing their desire for getting feedback. He draws the strong link between challenge and feedback, which he considers as "two of the essential ingredients of learning" (Hattie 2009, p. 24).

Delayed feedback and its implications to education quality

In this study, student teachers said that they receive feedback most of the time with delay. As they explained they see late feedback as a culture denying them to learn from a timely and direct feedback, and thus leading them to uncertain learning situation. A similar problem is also raised in the literature, especially among students' concerns about feedback (see 2.3). Here, students see late feedback unhelpful especially when it is cryptic, and they do not have the possibility to talk to teachers (Spiller 2014). Besides, literature shows that "learning without feedback, it has been said, is like blind archery: it is just not possible to perform to a given standard if you do not know how well you are doing" (Hounsell 2008, p. 5). In their research on the power of feedback, Hattie and Timperley (2007) also show that depending on how it is given, feedback can have a positive or negative influence on the learning and achievement. As research carried out on differing perceptions in the feedback process, "lack of feedback and lack of follow-up" (Carless 2006, p. 11) were indicated as one of the major learning barriers faced by student teachers. For these student teachers, assessment was meant for formal purpose, providing marks, instead of "helping students to learn" (Carless 2006, p. 11). Findings of this study indicated that because of delayed feedback, student teachers remain uncertain about their learning progress, which sometimes lead them to cumulative failures. Yet, literature shows that "students must above all receive adequate feedback from the teachers" (Krogull et al. 2014, p. 49). In addition, feedback for which

teacher educators take time to prepare and publish via formal structure is, in the literature, referred to as formal feedback. However, to be helpful to students, it should be combined with informal feedback for students to benefit from well-timed and frequent feedback (State of New South Wales, Department of Education and Communities 2015; Hesketh & Laidlaw 2002).

Communication channels and quality of feedback

In the educational discourse, feedback is considered as "the life-blood of learning that must be kept flowing" (Rwontree 1999, p. 17). In a research on students' perceptions of written feedback in teacher education, student teachers perceive it important for understanding how they are progressing in their learning progress and for feedforward. In this research, student teachers understand feedback as "a continuing two-way communication that encourages progress" (Downden, Pittaway, Yost, & McCarthy 2013, p. 355). Findings of this study show that for instructional feedback, a number of channels are used for communicating feedback to student teachers in different HLIs. These channels include both formal and non-formal structures. Multiple ways of communication, including informal channels, are used for communicating the instructional feedback. Student teachers appreciate the fact that they do not always have to follow a certain protocol for getting or asking feedback. The fact that teacher educators are open, use, and allow student teachers to use different channels of communication like phone calls, emails, social media, face to face communication make them feel comfortable. Once they face a problem, they feel free to contact the teacher educator for feedback. Student teachers see this as a good learning climate allowing teacher educators to regularly diagnose their problems, and then give them ongoing feedback tailored on their learning needs. This is supported by the findings from where "several student teachers expressed their preference for open and full feedback. However, they did not welcome feedback in isolation from the use of an overall supportive approach by teachers" (Gardner & Williamson 2007, p. 706). Here, student teachers in Australia emphasize the fact that "ideally, feedback is a continuing two-way communication that encourages progress" (Dowden, Pittaway, Yost & McCarthy 2013, p. 8).

It appears from interviews that student teachers appreciate the use of online platforms. As they expressed, with the use of online platform, they directly see their marks after assessment, especially when closed questions are used. They like the way that the feedback is individualized, and the fact that they are not obliged to be at HLIs campuses to have access to their marks. Posting lists of marks on notice board is another way of communicating feedback to students, which is generally used as indicated by interviewed student teachers. In research by Hatziapostolou & Paraskakis (2010, p. 111-113), they recognized, depending on how it is given, two types of feedback namely traditional and electronic feedback. Using literature on feedback especially those analysing the reasons for students' dissatisfaction on feedback, these authors argue that "the feedback's communication method" is one of these reasons. For electronic feedback, literature shows that it is now "increasingly used" because of associated of benefits including quick provision and reception of feedback (Race 2001, p. 113).

Literature indicates that "giving effective online feedback is an important skill for educators to develop because it guides the learners' development" (Leibold & Schwarz 2015, p. 34). A similar need appears also in the findings of the study at hand. Interviewed student teachers indicated that there is no additional feedback given whether in regard to feedback via online platform or posted lists. As it was mentioned during interviews, it seems that teacher educators expect student teachers to be informed about their learning progress by given marks. However, student teachers expressed that they are not happy with these two ways of communication, as with this, they can only check the marks and miss information about ways forward in regard to their weaknesses as well as needed improvement. On this aspect, a study on feedback in medical teacher education argues that the "effectiveness of feedback can be influenced positively or negatively" (Hesketh & Laidlaw 2002, p. 246). Literature, on the other hand, emphasize that feedback should offer opportunities for learning, which give students a clear orientation for their

learning development (Hamid & Mahmod 2010; Race 2001). A research on the art of giving online feedback show that students disclose low satisfaction in regard to online feedback. Here, the authors of this article argue that it is "critical for teachers to provide effective online feedback" (Leibold & Schwarz 2015, p. 43).

Feedback and students' self-esteem

Findings of this study show that instructional feedback leads student teachers to be responsible of their own learning. They learn the importance of active participation during the process of giving, receiving, and asking for feedback in their learning process. They understand the importance of taking the lead of asking for feedback, without waiting for the teacher educators to discover their problems (see 4.3.3). This is in line with the literature, which stipulates "constructive feedback within participatory and active pedagogy also means that students learn to give themselves feedback and to reflect upon their own behaviour or their own learning progress. Learning should lead from dependency to independence" (Krogull et al. 2014, p. 76).

It is known that though feedback occupies a central place in learning process (Schartel 2012, p. 77; Hattie & Timperley 2007, p. 104), its importance may be affected by the conditions in which it is given. This depends greatly on the nature of feedback and the context in which it is given (Brookhart 2008). According to findings of this study, as indicated in 4.3.2, the purpose of correctional feedback is to indicate to student teachers their weaknesses or their mistakes. In the classroom, as it was indicated by interviewees, only student teachers who make mistakes are given feedback. A similar problem is indicated in the discourse on quality education. It is indicated that "Many teachers use outdated learning theories, for example that giving pupils bad grades stimulates their performance. They don't know that negative self-esteem hampers motivations. Instead, learning should be explained through motivation theory, self-esteem, self-concept and feedback" (Krogull et al. 2014, p. 83). As per this study, the motivational aspect of the feedback is forgotten in the process of correctional feedback. This needs to be reflected because

when the teachers use unsuitable methods for communicating feedback, students may end up demotivated towards learning. As in such case, students do not know clearly, where they have problems and how they should correct them (Hounsell 2008; Hesketh & Laidlaw 2002). For allowing students learn from their mistakes and maximize the power of feedback, Hattie and Timperley recommend a combination of effective teaching methods and good learning climate (2007, p. 104).

Feedback as a learning opportunity

In this study especially in the case of instructional feedback, student teachers see feedback as a learning opportunity through which they learn additional new things, which they could not know in case the feedback was not given. This is in conformity with the feedback model of Hattie and Timperley (2007, p. 103). This model shows that feedback should be a two-directional process, and important element to facilitate the process of knowledge construction by students. Instructional feedback, as described in the interviews, is communicated in a way that involves both the student teachers (as self or peer feedback), and teacher educators. As indicated by interviewed student teachers, the aspect of time (when to give feedback) is highly considered. It is given on time, and immediately especially for helping student teachers solve problems that would obstruct their learning process. This is supported by the discourse on feedback which maintains that feedback is more valuable when it comes from various sources, especially from oneself; and promotes reflective discussions (See Brandt 2008, p. 42, Brinko 1993, p. 577). The importance of active participation of students in the feedback process is reinforced by the findings from a study on integrating and reflection in teacher education where one participant testifies that feedback is only helpful when students are involved in its process, that is, when they can see and discuss about their weaknesses. Otherwise, whatever amount of words teachers can tell them could be in vain (Brandt 2008, p. 39). It is also shown that the promotion of self and peer feedback lead student teachers to develop deep learning approaches that facilitate the acquisition of critical thinking skills and creation of professional learning communities (Lynch, McNamara & Seery 2012). With regard to the aspect of time, educational scholars argue that the time of giving feedback and its frequency in addition to its nature are important elements that increase its effectiveness (See Hatziapostolou & Paraskakis 2010; Brandt 2008; Hattie & Timperley 2007, Brinko 1993). With respect to the argumentation above, it becomes necessary to reflect further on how feedback is used in teacher education in Rwanda to ensure the preparation of effective and reflective teachers.

5.2.2 Feedback environment and teacher professionalization

In this section, I discuss findings in relation to feedback environment and the quality of learning to teach, the contribution of feedback to a reflective teaching, feedback as a pedagogical approach in teacher education, implicit learning about giving and receiving feedback, and the role of feedback in regard to teachers' professionalization in the globalized world.

Feedback environment and the quality of learning to teach

As indicated in chapter 2.2, Hattie shows that not only do students need a conducive environment to learn from but also teachers. He explains this as an environment where "errors are welcomed and fostered" (Hattie 2009, p. 23). Hattie believes that feedback is necessary for human beings to learn from their mistakes. He insists on the necessity of a conducive environment for teachers to learn about how to improve their teaching from others (Hattie 2009, p. 23). Results of this study show that not only do student teachers receive feedback during teaching and learning process in the classroom but also during teaching practice mainly done in the form of internship in schools. This is in line with research, which shows that feedback is one of the elements for effective teacher professional development and "critical components of adult learning theory" (Darling-Hammond, Hyler, & Gardner 2017, p. 4 & 14).

Educational discourse shows that the quality of teaching is highly influenced by the quality of teacher training (Vavrus et al. 2011; Fredriksson 2004). As mentioned above (see 5.1.4), findings of this study show

that student teachers experience an unbalanced monologue-feedback, where teacher educators focus more on telling students their mistakes and weaknesses, what students perceive as discouraging and establishing a distance between them and teacher educators. Student teachers feel sometimes blamed, brutalized, and do not like the fact that their mistakes are not welcomed. The Global Monitoring Report on Education from UNESCO shows that in economically poor countries, "teachers often enter the profession" without enough subject knowledge "because their own education has been poor" what leads to low learning quality of their own students (UNESCO, 2014, p. 237-238). The same problem is mentioned in the study on learner-centred pedagogy in sub-Sahara Africa, which argues that low quality initial teacher training leads teachers to imitate their teacher educators (Vavrus et al. 2011). Student teachers miss good examples during their training (Vavrus et al. 2011). As feedback is a central element of the learning (Krogull et al. 2013; Hounsell 2008; Rowntree 1999), student teachers need to be given effective feedback. This is one of the dimensions that qualifies as an excellent or expert teacher (Hattie 2012; Killen 2009), who is well equipped to overcome what numerous scholars called the transition shock (see Farrell 2016; Smith & Ulvik 2013). Here, scholars see preparing students to deal with this transition from being a trainee to becoming a full teacher essential and very crucial during the initial training (Gerdner & Williamson 2007, p. 698). It helps teachers to become aware of their pedagogical competences: strengths and weaknesses especially in supporting their learners (Lipowski & Rzejak, 2015). In addition, there is a need of quality teacher education for attracting professional teachers, and more especially eradicating the common ideology of seeing teaching profession as a second choice, in the sense of the adage "I can work as a teacher instead of being unemployed" (Devecioglu & Kurt 2013).

Feedback and implicit role modelling in teacher education

Results of this study show that depending on how the feedback is given, student teachers learn how they will give it to their own students. As they expressed in the interviews, they either take teacher educators as

their role models or not. According to literature, role modelling by teacher educators is perceived as the core of teaching to teach (Lunenberg, Korthagen & Swennen 2007). For the case of instructional feedback, student teachers plan to imitate their teacher educators, by creating a supportive learning climate, which will make their students feel comfortable to learn from, and where their mistakes will be welcomed and used as learning opportunities. Only those student teachers, who experience the type of instructional feedback, feel supported and have positive relationship with the teacher educators. They understand the importance of receiving feedback. Even when they make mistakes, they feel comfortable, as they know that positive feedback will be given. Similarly, student teachers who participated in a research on teacher education at a regional Australian university show that good feedback and quality teaching are correlated. These students emphasize on the notion of student teacher relationship concerning feedback environment. According to these students, teachers who provide "constructive and helpful feedback" open doors to learning (Dowden, Pittaway, Yost & McCarthy 2013, p. 348).

In addition, student teachers in my study testified to have learnt from receiving instructional feedback the importance of actively involving students in the process of giving and receiving feedback, thus, establishing a good learning climate and reinforcing good relationship in the classroom. Student teachers see, in this case, feedback very helpful in learning how to teach, especially breaking misconceptions they had about teaching. Educational scholars emphasize also on the fact that teacher education should be organized in a way that helps student teachers break the preconceptions they might have about teaching, by setting good examples about teaching (Farell 2016; Lunenberg, Korthagen & Swennen 2007).

For administrative feedback, some student teachers see receiving marks as enough for feedback. Parallel with this understanding, is the danger of a role model, leading later in job to the same behaviour as experienced during teacher training (Vavrus et al. 2011; Blume 1971). Interest on marks by student teachers is also highlighted in the discourse

on teacher education. Teacher educators believe that student teachers are "too grade-oriented", and by this more concerned about marks neglecting the learning character of feedback (Carless 2006, p. 12).

In the case of correctional feedback and administrative feedback, a dichotomy is observed. On one side, student teachers, who are satisfied with getting marks as feedback, plan to do the same for their own students. On the side of student teachers who are not satisfied of getting marks alone as feedback, as they expressed during interviews, they wish to learn more about strategies of giving better feedback. These findings are not far from the "widespread concerns that pre-service teacher education in Rwanda is too academic and theoretical, with the bulk of the lecturers having little or no direct experience of the day-to-day challenges of classroom teaching" (Bennel & Ntagaramba 2008, p. viii). In this study, student teachers say that good training is needed for someone to become a good teacher. Some student teachers expressed that once they will be teachers, it will be difficult for them to provide helpful feedback to their students because they have only been given marks as feedback or recognized blames instead of encouraging feedback. In such cases, research shows that it would be difficult to expect teachers to do or implement what they have not experienced (Rubagiza et al. 2016).

Findings of this study show that, as expressed in the interviews, student teachers learn how to give feedback from observing how teacher educators do. This means that they learn it implicitly, and as indicated above they experience from teacher educators both good and bad examples. This is in line with results of a research on modelling in teacher education in Rwanda that shows that teacher educators, even though they understand the importance of role modelling miss explicit modelling (Niyibizi 2021).

Feedback as a pedagogical approach in teacher education

Literature shows that the quality of an education system depends mainly on the quality of teacher education (UNESCO 2014). Student teachers are exposed to learning to teach practically via simulated microteaching and internship. However, as reported by interviewed student teachers, higher learning institutions in this study do not follow a shared strategy in doing so. They all offer internship, but the way it is done concerning length and intensity, differs from one institution to the other. In addition, microteaching during seminars and reflecting real teaching situation is only offered in some institutions. This can be associated to the problem of low-quality education, especially in Sub-Saharan Africa, where teachers do not receive a quality training to allow them to enter the profession with required competences. Student teachers, in these countries do not receive "adequate experience of learning to reach in classrooms" (UNESCO 2014, p. 240).

The results of this study show that, in Rwanda, student teachers have experience to three types of feedback. Regarding effective pedagogical approach in teacher education, it emerges from this study that teacher educators use instructional feedback as a learning opportunity to reflect on how to teach. This finding may be related to the ALACT Model for learning to teach (see chapter 2.1.2). This model stipulates that for effective teacher training, "helping student teachers become reflective" should be at the centre of any teacher education programme (Korthagen 2008, p. 108). With regard to instructional feedback, the findings of this study show that student teachers are encouraged to play an active role in the feedback process. It emerges from interviews that with instructional feedback, especially during internship, student teachers learn not only how to improve the quality of their teaching, but also professional behaviour. As student teachers indicated, through effective feedback, they gradually remove misconceptions they had about teaching. Student teachers learn to communicate not only with the university teachers but also with cooperating teachers, school-based mentors, and school leaders. What student teachers appreciated is not only the feedback, which is given on time, but also the quality of its content. Because of the good climate in which instructional feedback is given, student teachers do not fear to expose their problems without waiting for teacher educators to ask or discover them. When they face any doubt whether during the lesson preparation, or during teaching process, student teachers say that they feel free to ask for help or advice. They see teacher educators as facilitators for their learning process. This is emphasized in educational science since decades as Dewey for example pointed out that for teaching, "we don't learn from experience. We learn from reflecting on experience" (Dewey 1925, p. 13 as cited in Chua & Chye 2017, p. 61). For prompting student teachers and leading them to become reflective teachers, teacher educators need to see their major role as facilitators (supporting learning to teach) and in giving impulses for self-reflection (Korthagen 2008, p. 127–129).

For the other two types of feedback that emerged from this study, namely administrative feedback and correctional feedback, findings of this study show that student teachers do not feel prepared for teaching. For correctional feedback, Student teachers understand feedback as a one-way process. During teaching practice, student teachers are given unbalanced feedback with focus on what was not well done. As indicated by interviewed student teachers, teacher educators focus on their mistakes and weaknesses, where even small mistakes are indicated. For teaching practice, feedback is directly given, but without a dialogue. Student teachers have to listen to what teacher educators tell them: their mistakes and how they can improve. Sometimes, feedback is used as an explanation for the given marks. In regard to this result, educational scholars argue that teacher educators should a participative learning and teaching model where student teachers are prompted to actively contribute to their personal professional development" (See Chua & Chye 2017; Korthagen et al. 2008; Tsien & Tsui 2007). Here, scholars insist on the role of "a two-way interactive learning process" for student teachers to be well prepared for the 21st century teaching profession challenges (Chua & Chye 2017, p. 63).

For administrative feedback, findings of this study show that student teachers face a learning situation that does not allow them to receive enough feedback. In regard to this finding, literature shows that being an excellent teacher is not something born with but rather a product of received education and training accompanied with experiences (Fredriksson 2004). To assure educational quality, student teachers should be trained in the same way they are expected to teach (Vavrus, Thomas &

Bartlett 2011; Leu 2005). To achieve this, initial training that makes a difference is needed. This means a training that promotes visible learning, and where the power of feedback is maximized (Hattie 2009). The discourse on teacher education argues that to train good teachers, during initial teacher training student teachers should learn "ways of teaching, the value of teaching, the positive relationships they can foster with young people and their desire to make a difference" (Tan, Liu, & Sim 2017, p. 48).

This study shows that administrative feedback is used for the accomplishment of administration and academic formalities. It appears from interviews that during internship, student teachers receive limited visits by university teachers, and in most cases, for providing or receiving marks. Student teachers focus more on getting marks instead of seeing internship as a learning opportunity. However, they complain that teaching practice during university studies are not sufficient to learn how to teach. Scientific literature on teacher education stipulate that for teaching internships and practice to be effective, they should be followed by feedback sessions that allow student teachers to reflect on their actions and facilitate them become reflective teachers (Ellis & Loughland 2017; Brandt 2008; Korthagen 2008). Feedback should be a central element and useful for effective supervision (Serdaneh 2001). Teacher educators should feel obliged to provide feedback to student teachers after observation during teaching practice (Pungur 2007). Feedback is indicated as a necessity for teachers' professional development (Mizell 2010; Hattie 2009; Jeuthe 2001).

Feedback and professionalization of teachers in the globalizing world

As mentioned above, findings of this study show that student teachers in Rwanda experience three types of feedback namely administrative feedback, correctional feedback, and instructional feedback. These types are associated with different kind of relationships between the student teachers and teacher educators, which can be positive or not. Depending on how feedback is given, a symmetric or asymmetric relationship is created. Student teachers perceive feedback as establishing a power rela-

tionship, a distance, or a supportive relationship. Results of this study also demonstrate that student teachers face an uncertain learning process because of delayed feedback. In this situation, student teachers see feedback being used for what is different from their expectations. In their views, feedback is used for fulfilling administrative formalities, instead of pedagogical purpose, which, according to the findings of this study, leads them to cumulative failures. For these student teachers, delayed feedback is expressed as a barrier to learning quality. It also emerges from the study that explicit reflection in relation to feedback is missing. Student teachers rather learn implicitly from teacher educators about providing feedback.

These findings are not only important for the teaching process itself, however as well for the learning models needed from teachers to ensure a successful communication in a globalise world. Literature shows that the concept of globalization needs to be reflected, especially in the 21st century where its effects on human life is much more visible (Devecioglu & Kurt 2013). The role of teachers is central to ensure that students acquire needed competences in the 21st century and even for the achievement of 2030 Sustainable Development Goals (Wedell 2017; UNESCO 2016; Devecioglu & Kurt 2013; Vavrus, Thomas & Bartlett 2011). In a more and more complex world, it is necessary to see the world in the eyes of others, to train change of perspectives and to come to mutual understanding in compromises. This needs communication competencies, experience to listen and to give and receive feedfback. Learning feedback in schools is therefore not only an asset for the learning itself, however a competence to deal with the future. Feedback should be used to equip student teachers with "a sense of how to get students to look through other lenses and perspectives and activate students' own reconceptualization of these issues" (Scheunpflug 2011, p. 30). This understanding has consequences for teacher professionalization, as teachers themselves need to have these competences in communication and being role models for change of perspective and mutual listening; This "highlights how the complexity of globalisation, and the competencies a teacher needs for global education and cross-cultural learning, can be conceptualised on the micro-level" (Scheunpflug 2011, p. 30).

5.2.3 Feedback and development in the society

Under this section, I discuss findings of my study regarding leadership styles, development of social values in the society, peace building in post-conflicts societies, and communication process in a globalized world.

Types of feedback and its meaning to school leadership

Literature show that school leadership plays a central role in improving school quality (Bush & Glover 2014; Beatriz, Deborah & Hunter 2008, p. 32), and that "it acts as a catalyst" for effective learning quality (Leithwood, Harris & Hopkins 2008, p. 28). Findings of this study show that student teachers experience three types of feedback namely administrative feedback, correctional feedback, and instructional feedback. According to how they are described, it emerges from the interviews that administrative feedback focuses on the accomplishment of administrative and academic formalities, correctional feedback focuses on telling student teachers their mistakes and weaknesses, while instructional feedback aims at promoting the constructivist-based learning approach. These three types of feedback have a relationship to the understanding of the ideal types of school leadership namely managerial leadership, instructional leadership and transformational leadership. Managerial leadership which focuses on the administrative purposes (Bush & Glover 2014) is connected to administrative and correctional feedback. Conversely, instructional and transformational leadership which are concerned with improving learning, student autonomy and self-concept (Day & Sammons 2016; Bush & Glover 2014) are associated to instructional feedback.

The necessity of reflecting to teachers as leaders is argued in the literature. They accomplish a complex role. In addition to being "researchers, mentors, scholars, and developers", they are also "leaders and intellectuals who can make a difference in their schools and profession"

(Lieberman & Miller 2005, p. 153) and in society, especially in countries with poor economic background. However, it seems that not all types of feedback emerging from this study prepare student teachers for effective leadership. Instructional feedback is a good example for training student teachers to becoming good leaders, because "teachers, like students need opportunities to be actively engaged in their own learning, rather being told what to do" (Lieberman & Miller 2005, p. 157). This is the case for instructional feedback. Effective learning of student teachers is at the centre of the feedback process. Student teachers are encouraged to play an active role. Teacher educators make use of feedback to promote not only active participation of student teachers, but also to lead them to become responsible of their own learning. Instructional feedback is associated to a conducive learning environment, in which, student teachers feel free to speak out their ideas, because they are sure that their mistakes are well welcomed, tolerated, and transformed into learning opportunities. Even though, not made explicit, this climate in which instructional feedback is given, allow student teachers to learn from their teacher educators how an effective classroom leadership should look like.

In contrast to instructional leadership, it seems that with correctional feedback, student teachers are not given opportunity for learning to lead. Yet, "for school improvement, more teachers need to function as leaders" (Phelps 2008, p. 119). For correctional feedback, teacher educators focus on indicating student teachers their weaknesses and mistakes. The motivational aspect of feedback, telling student teachers what they did well, is missing. Teacher educators look for what is wrong, even what student teachers called minor mistakes. Student teachers experience unbalanced feedback, focusing only on the negative side. The teacher educators give feedback, without involving student teachers. Student teachers describe correctional feedback as a top-down monologue process. Because of how correctional feedback is given, especially when teacher educators take an abusive side, student teachers see correctional feedback as building an asymmetric relationship. Student teachers feel uncomfortable and end up becoming demotivated. Consequently, student teachers do not see their teacher educators as role models. This is a problem to quality development because such student teachers are not well training enough to cope with leadership obstacles. Such student teachers miss a "supportive environment" to build their confidence. They are "easily discouraged, sometimes cynical, perhaps burned out, and may engage minimally in professional development. Basically, they lack the necessary knowledge, skills, and dispositions that compose teacher leadership" (Phelps 2008, p. 122).

As far as administrative feedback is concerned, learning is not at the centre of providing feedback. The focus is rather to put on fulfilling academic and administrative formalities. This is similar to managerial leadership which, even though said to be central for a successful leadership, is also accused to be "technicist", and focusing on "implementing external imperatives with little scope for local initiative (Bush & Glover 2014, p. 570). Seeing how administrative feedback is communicated, it seems to promote the "technical rationality model" of teaching, a teaching approach whereby students are denied rooms for reflections, and as result inhibit their "ability to adapt" later in the teaching profession (Vavrus et al. 2011, p. 26). As per this study, administrative feedback is communicated in form of marks published via official platform. This prevents student teachers to meet teacher educators. Thus, student teachers are passive partners in the process of feedback, something that leads them to doubt the marks they receive and initiate the complaint process. Missing a descriptive feedback, student teachers see this as denying them the right to learn from feedback. There is a lack of dialogue, which student teachers perceive as a learning challenge. Student teachers find themselves into uncertainty, yet they were expecting to get constructive support from teacher educators.

Knowing that "teachers play a crucial role when it comes to shaping the interaction with students in a learning supportive way" (Lange 2016, p. 176), the results of this study show the need of reflecting to the implications that teacher educators' feedback have on preparing student teachers for effecting leadership. Because "teacher education in the twenty-first century cannot be just about teacher training. It must be about developing professional leaders in the field of education, who are

proactive problem-solvers and empowered researchers" (Tan, Liu, & Low 2017, p. 2). "All teachers possess the potential to become leaders" (Phelps 2008, p. 122), that need to be developed starting from pre-service training.

Feedback and pedagogy for peace building in post-conflicts societies

The Great Lakes Region has been characterized by political and security instabilities. Rwanda for instance, where this study is located, recognized a tragedy of Genocide against Tutsi that led to several consequences including loss of human and material resources (see chapter 1.1). As mentioned above and in the findings of this study (chapter 4), feedback, depending on how it is given, is connected to different symmetric or asymmetric power relationships. Besides promoting symmetrical relationships between the student teachers and teacher educators, instructional feedback is perceived by student teachers as contributing to a culture of transparency, and more especially providing room for dialogue. With this feedback, interviewed student teachers testified that they feel supported, and comfortable to share their problems with the teacher educators, as they know that they will be addressed in a positive climate. As far as asymmetric relationships are concerned, they are associated with administrative and correctional feedback. Student teachers feel intimated and discriminated. This leads to a climate of fear that ends of with a feeling of a distant relationships between the student teachers and teacher educators. Uncertainty, blames and confusion are some social challenges faced by student teachers because of asymmetric relationships created by the given feedback.

In the literature, teachers are often perceived as agents of transformative change in society, including being agents of peace (Bourn 2016, p. 67; Ilisko 2006, p, 24). In societies that have been affected by conflict, teachers are seen to play a key role in nation building, identity construction and peace and reconciliation promoters (Durrani & Dunne 2010; Smith, McCandless, Paulson & Wheaton. 2011). "As agents of peace, teachers are expected to model interpersonal relationships and teach/impart values which uphold peace including tolerance, recogni-

tion and respect, and a range of skills such as critical thinking, compromise, mediation and collaboration" (Horner et al. 2015, p. 22). Similarly, quality relationship between teachers and their students is an important tool to shape students' identities and thus equip them with necessary competences for their future career and peacebuilding in their societies (Barrett 2007). As, it is known that "one cannot give what they do not have" (Rubagiza et al. p. 221). Given the context in which this study was conducted and the related findings, feedback seems to be a tool that could be used during pre-service teacher training to ensure that teachers are trained and well equipped to contribute to bringing peace and social cohesion in the school environment in post-conflict countries like Rwanda. Coming back to findings from this study, student teachers experience an implicit learning regarding feedback. For instructional feedback, they take teacher educators as their role models, while it is the opposite when it comes to correctional feedback. Given the fact that feedback, depending on how it is given, appears like a "double-edge sword" (Shute 2008; Hattie & Timperley 2007), one can conclude that there is need of reflecting how it is integrated in both initial and in-service teacher training. This would help to make sure that prospective teachers are well prepared for the effective use of feedback, especially in regard to creating a culture of peace building from the school level.

Feedback and communication process in a globalizing world

Findings of this study show that different forms of feedback experienced by interviewed student teachers reflect different forms of communication (see chapter 4 and 5.2.2). According to types of feedback that emerged from this study, one-way communication or multiple ways communication is used. Regarding one-way communication, feedback is communicated via formal communication platforms, or orally but without dialogue. Here student teachers are not actively involved in the process of giving and receiving feedback, they play a passive role. They have either to check posted marks or listen to what teacher educators tell them. Seeing this, some student teachers opt to unguided self-feedback. As per interviews, these student teachers feel that their rights to effective

feedback is denied. They face a hierarchy culture that inhibit them from active participation in the teaching and learning process. For multiple-ways communication, feedback is given using different ways including informal or easy-going communication channels. Student teachers play an active role in the process of feedback. As per interviews, teacher educators try to avoid the culture of spoon feeding by encouraging or prompting student teachers to become responsible of their own learning by seeking feedback. Feedback is, thus, given by oneself, peers, or by the teacher educators continuously for feedback or feedforward.

Literature contends that education is normally expected to assist young people and children, as citizens, to "learn to be critical and responsible". In the globalized world especially, they need to be prepared "to participate in and understand activities at international level" (Fredriksson 2004, p. 4). On the other side, teachers are known to play a central role for students to acquire needed competences in the 21st century and for the achievement of 2030 SDGs (Wedell 2017; UNESCO 2016; Vavrus, Thomas & Bartlett 2011). The notion of feedback for living in a globalized world was already explained as contribution to the professionalization of teachers as educating for a world of increasing education (see chapter 5.2.2). In addition, this aspect needs to be reflected as well in its meaning for the development of societies, especially in the Global South where teachers contribute in enabling societies in the process of globalisation and reaching Sustainable Development Goals by the communication competencies, they provide to a society. Serving as a role model for open dialogue and feedback-oriented communication may be seen as a step towards a society with greater sustainability and global communication.

6 Implications to the study

In this chapter, I present the implications of the study. I first make suggestions for further research (6.1) and give recommendations for practice (6.2). The suggestions for further research are highlighted as hints for continuing research in the domain of teacher education, which are connected to the topic of this study, especially as emerging from its find-

ings and related discussion (chapter 6.1.). Recommendations for practice are given to different education stakeholders with the aim of improving teacher education. These stakeholders are intervening at different levels, and more especially for the benefit of educational quality development through effective teacher education (see chapter 6.2). At the end of this chapter (see chapter 6.3), the limitations of this study are presented.

6.1 Implications for research

In the following sections, suggestions for further research emerging from this study are given. Areas of research highlighted are related to feedback and its effect on role modelling, reflective teaching, development in the society, and transformative education.

Distribution of types of feedback in the Rwandan higher education

Findings of the study at hand show that student teachers in Rwanda have experiences to different forms of feedback which, via the abduction process, are summarized into three ideal types namely, instructional feedback, correctional feedback, and administrative feedback. The aim of this study was to explore the experiences of student teachers regarding feedback by means of semi-structured interviews. Seeing how these different types of feedback affect the quality of teacher education as well as the overall educational quality development (see chapter 5.2), it would be interesting to conduct a quantitative study to explore how these different types are distributed and thus use the findings for further reflections on the quality development of teacher education in Rwanda and related consequences.

Effects of teacher educators' feedback on teaching quality

As presented in the findings of this study (see chapter 4), student teachers in Rwanda have experience to three types of feedback namely administrative feedback, correctional feedback, and instructional feedback. According to the way these types are described, they do not all contribute to the development of learning quality. Interviewed student teachers also

show different positions in regard to these types. In the same line, results of a research on teacher education in eight Hong Kong universities, show differing perceptions on feedback between student teachers and teacher educators (Carless 2006). In this study, teacher educators consider their feedback to be useful, while student teachers report the opposite (Carless 2006). For this study, the scope was limited on describing only the experiences of student teachers. It would be interesting for the future research to conduct a study that compares the perceptions of student teachers and teacher educators in regard to feedback. In addition, a longitudinal study could be conducted by analysing to which extent the feedback student teachers receive affect the quality of feedback they give to their own students. By this, the effect of role modelling between teacher educators and student teachers regarding feedback could be deeply examined.

Feedback and preparation to reflective teaching

Based on the empirical findings of this study, it becomes visible that student teachers in Rwanda miss the opportunities to reflect on the pedagogical choices and practices undertaken by the teacher educators. Yet, reflection exercise is placed at the center of a powerful teacher training because of its importance in overcoming the persisting challenging gap between theory and practice faced by teacher education, especially in developing countries (Darling-Hammond 2006). Basing on this, it will be interesting to conduct research on the contribution of feedback for preparing student teachers to reflective teaching.

Conceptualization of teaching profession by student teachers

While responding to the initial question used in interviews, student teachers talked about how they see the teaching profession. Some of these student teachers mentioned that teaching is not their first choice. This study aimed at investigating the student teachers' beliefs regarding their preparation, especially based on feedback. It would be interesting to conduct an in-depth study on the perceptions of student teachers in regard to teaching profession, to look at the reasons leading them to de-

preciate becoming teachers, and measures that can be taken to make the teaching profession attractive, especially for young generations in Rwanda.

Teachers' role modelling and development in the society

Being a role model in life is important, especially between adults and young people (Sealy & Singh 2008). This study shows that interviewed student teachers wish to learn from teacher educators how effectively feedback should be used in the teaching and learning process. Based on these findings, there is a need for research to examine the role teachers in Rwanda play in preparing young people to become role models, how they do it, what challenges are there, and what is being done about it.

Teaching practice and effectiveness of teachers' preparation

This study shows that student teachers in Rwanda are practically initiated to the teaching profession through a variety of approaches including internship and microteaching. As shown by the results of this study, the teaching practices, mentorship and supervision are not consistent and thus giving a challenge in regard to feedback understanding. In some cases, findings show that the focus is put on fulfilling academic formalities instead of acquisition competences. Interviewed student teachers reveal that they receive limited supervision and, in most cases, in the form of summative assessment. It would be interesting to do in-depth research to investigate how teaching practices are reflected and integrated in the overall preparation of student teachers, how they are coordinated between HLIs and schools, how supervision is reflected at different levels, who are involved, and how both teacher educators and student teachers are prepared for effective supervision.

Effect of feedback to transformative education

According to this study, feedback leads to different relationships between student teachers and teacher educators. This causes different effects on these students. From these results, some students feel relaxed in the classroom, are encouraged to participate in the feedback process by asking questions and feel comfortable helping others. Other students are afraid. Based on the history of Rwanda and the surrounding region, it would be good to do further research to see how feedback and related communication processes, in general, can lead to a culture of peace-building or its demolition. The role of teacher educators in this regard, and how these teachers perceive their role in shaping the future through feedback should be examined. In the same vein, the study will examine how feedback is used to prepare students for global learning, and how feedback is used to bring about positive changes in society. This means that research is needed on the influence of feedback in regard to the pedagogy of peace, to explore how feedback is used in preventing violence and what understanding do teachers and student teachers have in this regard.

6.2 Implications for practice

In the next sections, suggestions for the improvement of teacher education are presented. These suggestions are drawn from the findings of this study (see chapter 4) as well as related discussion (see chapter 5). These suggestions are focused on the aspect of role modelling in teacher education, collaboration of different actors involved in teacher education, teacher education curriculum, and monitoring process.

Explicit role modelling by teacher educators, especially regarding feedback

Scientific discourse argues that positive changes in "university-based teacher education" can be achieved through "awareness-raising" (Lee 2016, p. 519). According to the findings of this study, student teachers in Rwanda experience different forms of feedback. This finding reveals the necessity of regular and planned forms of exchange among each other. Teacher educators should have regular platforms for reflecting together on the quality of their job, especially how feedback may affect the teaching and learning process and how this affects the professionalization process of student teachers. Student teachers need to be prepared explic-

itly and sufficiently about the effective use of feedback in the teaching and learning process. For this to be effectively done, a systemic approach is needed. For maximizing the power of feedback, a pedagogy that put the learner at the centre of teaching and learning process is advised (Hattie & Timperley 2007, p. 104).

Effective cooperation between higher learning institutions and host schools during the internship

This study shows that during internship student teachers receive feedback both from university supervisors, and from the host schools, that is, school leaders and school-based mentors, or cooperating teachers. Both cases show gaps related to the way student teachers are accompanied through feedback. This shows the need as well of preparing student teachers about bringing changes in a way that "suits the exigencies of teaching and learning in their specific contexts" (Lee 2016, p. 521). A collaboration between universities and schools is found to be effective in preparing and providing student teachers with spaces for reflecting on feedback practices. In the case of Rwanda, it is recommended that teaching practice at universities and internships in schools be fully exploited for effective professional learning of student teachers, especially through constructive feedback. This would be done by reinforcing the collaboration between HLIs and schools through ongoing exchanges and capacity building of school-based mentors in charge of regular follow-up and supervision of internships at the school level.

Integrating feedback in teacher training programme both as a content and as approach

According to the results of this study, interviewed student teachers show different views about feedback: the meaning of the word itself, how it is used in teaching and learning, and how they plan to use it in their own schools. It was also found that a few students described feedback only as one of the components of the communication process. Based on the importance of feedback on the quality of education (Lipowski & Rzejak, 2015; Ornshaw 2007; Loughran 2006), it is recommended for curriculum

designers to integrate feedback in the teacher training curriculum not only as content but also as a contribution to teaching methods.

Participatory monitoring approach to ensure effective feedback

Following the findings of this study, higher learning institutions are recommended to revisit the rules governing teaching and learning processes by integrating feedback as a need to support the students. It is imperative that these guidelines be made public, and that a system be established to monitor their implementation. In order to achieve this, HLIs need to provide lecturers with regular training on quality assurance measures, especially through feedback. HLIs also need to think about the challenges that could hinder the quality of feedback given to students, and to use a participative approach for discussing these challenges with teacher educators to bring together solutions.

6.3 Limitations of the study

As mentioned from the introduction chapter, this study was interested to analyse the subjective theories of student teachers in regard to feedback. The study was conceptualized as qualitative study as being the first in the Rwandan context. Given the nature of the research question, semistructured interviews were chosen as a method for data collection. The focus of the study was on feedback as one aspect of educational quality, and more especially on feedback in teacher education. It was an exploratory study where 32 student teachers from different HLIs were involved. This means that the presented findings reflect the qualities of the field but do not give any hints about their quantitative distribution. In this study, the focus was on the perception of the students only. The next step would be to integrate a perspective on the objectivity how feedback is given in the classroom itself, by observation of the classroom or by video studies. As well the perspective of the teacher educators would be of interest. This is not covered by the presented study and calls for further studies (as outlined in chapter 6.1).

Quality teacher training matters

Researchers and scholars working on the role of education have emphasized the importance of teachers not only in maintaining the quality of education but also in overall development of the society. "A teacher is a highly valued personality in a society and teaching is considered to be the most sacred and distinctive profession" (Duta, Panisoara & Panisoara 2015, p. 1007). Neslon Mandela underlined that "Education is the most powerful weapon which you can use to change the world". Many centuries ago, the well-known philosopher and natural scientist Galileo Galilei emphasized the need of guidance and education saying that: "you cannot teach a man anything, you can only help him find it within himself." The analysis of this quote shows the central role of feedback in bringing people to their own development and personal success. To achieve this, quality teacher training is necessary as "no one is born to be an outstanding teacher. Good teaching is a result of education, training and experience" (Fredriksson, 2004, p. 9).

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Appendices

Appendix 1:Guide for semi-structured interviews

Interview code number:		
Place:		

Initial stimulation

(1) I am interested to learn about teacher education in Rwanda, tell me about your learning to become a teacher!

Stimulations to gather in-depth data¹⁵ / for follow up¹⁶

- (2) What do your teachers do so that you learn effectively? Is there an example that can help me understand this well? Tell me!
- (3) What do you appreciate and what don't you appreciate in your learning process? Tell me!
 - i. You said that you appreciate ..., how was it for you? Is there an example that could help me understand more? Tell me!
 - ii. You said that you do not appreciate ..., how was it for you? Is there an example that could help me understand more? Tell me!
- (4) Can you tell me about assessment in your learning process?
 - iii. How are you informed your performances after assessment?
 - iv. How do you learn from these performances? How do your teachers help you in this regard?

¹⁵ These stimulations were reformulated or reorganized depending on the answers provided on the initial stimulation to probe interviewees for sharing their experiences (see 2–7 above).

 $^{^{16}}$ For follow-up, these are examples that were also reformulated or reorganized depending on the answers provided by interviewees (see i–xiii).

- v. How does this help you in subsequent learning and assessment processes? Can you give me examples that could help me understand this more?
- vi. You said that you feel unhappy when you get bad performances; can you tell me more about this?
- (5) Could you tell me about internship?
 - vii. Do your teachers come to visit you during internship? If yes, could you tell me more about this?
 - viii. Who else help you during internship? Tell me!
 - ix. What do you think internship should be organized for it to be more effective to your learning to become teachers in the future?
- (6) What about feedback in your learning process to become a teacher? Please tell me!
 - x. How do you feel while and after getting feedback from your teachers? Can you use examples to help me understand this better!
 - xi. Which ways do your teachers use to give you feedback? Give some examples!
 - xii. Do you have possibilities to ask or give feedback to your teachers? Tell me more!
 - xiii. How do you think positive / good feedback should look like?
- (7) How do you wish teaching and learning process to become a good teacher look like?

Concluding stimulation

(8) Is there anything else that could help me understand your learning experience as a student teacher, especially in regard to feedback? Tell me!

Respondents background questions¹⁷

Items	Answer
Age	
Gender	Female Male
Previous school experience	Drop out Repetition Delay
	Others (please specify):
University / HLI enrolled in	
Kind of HLI: government (State) or Non-state	State Non-state
Location	Urban Rural
	Semi-urban
Study subject in HLI	Science Social Science
	Language
Level of study	III IV V
Attendance mode	Day Weekend Holiday
	Distance Online
Teaching experiences (number of years)	
Teaching level	Primary Secondary Secondary
Length of internship	

Closing

Thank you very much for giving me your time to be used for my research. The information you provided will be treated with confidentiality. This is my service card; use it to contact me in case of need.

 $^{^{17}}$ This table was filled at the end of interviews with the permission of the interviewees. Given answers helped in the choice of subsequent respondents.

Appendix 2: Description of Higher Learning Institutions involved in this study

Name of HLIs	Study subject	Interviewed	student teache	ers
		F	M	Total
Government HLIs		•	•	
Rweru	Sciences	1	2	3
	Social Sciences	1	0	1
	Arts	0	1	1
Ruhondo	TVET	0	2	2
Non-Government I	HLIs			
Muhazi	Social Sciences	0	1	1
	Languages	1	0	1
Cyohoha	Social Sciences	0	1	1
	Sciences	1	1	2
Sake	Languages	1	0	1
Ihema	Languages	3	3	6
Nasho	Sciences	1	0	1
	Languages	1	0	1
Hago	Sciences	0	1	1
Kivumba	Social Sciences	1	1	2
Mpanga	Sciences	0	1	1
	Social Sciences	0	1	1
Kivu	Social Sciences	1	2	3
Rwanyakizinga	Sciences	0	1	1
	Languages	0	1	1
Mukamira	Sciences	1	0	1
Total	•	13	19	32

Source: Primary data, 2019

According to the table above, data used in this research were collected from 32 student teachers (13 women and 19 men) studying in 13 higher learning institutions. Among these HLIs, 2 of them are government institutions, and 11 are non-government institutions respectively referred to state and non-state HLIs (seehttps://gazettes.africa/archive/rw/2021/rw-government-gazette-dated-2021-02-18-no-Special.pdf). These interviewed student teachers are trained to teach different subjects at secondary school levels. The subjects have been grouped into five main categories. Student teachers are trained to teach sciences, social sciences, languages, arts, or TVET related subjects. In addition to this, these 13 HLIs are located either in urban areas, semi-urban areas, or rural areas, and different attendance modes including day, weekend. Holidays, and inservices are used.

Appendix 3: Anonymized interviewees

No	Names of	Gender	Names	No	Names of	Gender	Names of
	interviewees		of HLIs		interviewees		HLIs
01	Gasabo	М	Kivu	17	Rusizi	M	Rweru
02	Kicukiro	М	Kivu	18	Nyamasheke	F	Mukamira
03	Nyarugenge	F	Kivu	19	Nyabihu	M	Mpanga
04	Huye	F	Rweru	20	Ngororero	F	Muhazi
05	Nyanza	M	Ihema	21	Ngoma	M	Cyohoha
06	Nyamagabe	М	Ihema	22	Bugesera	F	Cyohoha
07	Nyaruguru	F	Ihema	23	Rwamagana	M	Mpanga
08	Rubavu	М	Ihema	24	Kirehe	M	Muhazi
09	Karongi	F	Ihema	25	Kayonza	F	Nasho
10	Ruhango	F	Ihema	26	Nyagatare	F	Nasho
11	Muhanga	М	Cyohoha	27	Gatsibo	M	Hago
12	Kamonyi	M	Rweru	28	Rulindo	M	Kivumba
13	Gisagara	М	Rweru	29	Rutsiro	F	Kivumba
14	Burera	F	Rweru	30	Musanze	M	Rwanyakizinga
15	Gakenke	М	Ruhondo	31	Kigali	F	Sake
16	Gicumbi	М	Ruhondo	32	Kanombe	M	Rwanyakizinga

Source: Primary data, 2019

As mentioned in the table above, 32 interviews were conducted with student teachers from different Higher Learning Institutions. Among these student teachers, 13 were females and 19 were males.

The names of students are covered with districts in Rwanda not related to where the students live in reality. The names of HLIs are covered with names of lakes in Rwanda.

Appendix 4: Information on interviewees

The following table shows the criteria with which the saturation of the study was controlled. For reasons of anonymization, the characteristics of each case are deleted. The original table, which was controlled by the interpretation group, included the individual information of each interviewed person.

No	Interviewees	Age					Marital status Gender			Previous school prob- lems								
		20–25	25-30	30–35	35-40	40-45	45–5₿	ਸ	×	Single	Married	No particular problem	Failure	Drop out	Repetition	Delay	Social/health problems	School demo- tivation
1	Gasabo																	
2	Kicukiro																	
3	Nyarugenge																	
4	Huye																	
5	Nyanza																	
6	Nyamagabe																	
7	Nyaruguru																	
8	Rubavu																	
9	Karongi																	
10	Ruhango																	
11	Muhanga																	
12	Kamonyi																	
13	Gisagara																	
14	Burera																	
15	Gakenke																	
16	Gicumbi																	
17	Rusizi																	
18	Nyamasheke																	
19	Nyabihu																	
20	Ngororero																	
21	Ngoma																	
22	Bugesera																	
23	Rwamagana																	
24	Kirehe																	
25	Kayonza																	
26	Nyagatare																	
27	Gatsibo																	
28	Rulindo																	
29	Rutsiro																	
30	Musanze																	
31	Kigali																	
32	Kanombe																	

No	Interviewees	Kind of HLI	V: 1 Critic		Names of HLIs											Location of HLI				
		Private	Public	Rweru	Muhazi	Cyohoha	Mugesera	Sake	Ihema	Nasho	Hago	Kivumba	Mpanga	Kivu	Rwanya- kizin <i>g</i> a	Mukamira	Ruhondo	Urban	Semi-urban	Rural
1	Gasabo																			
2	Kicukiro																			
3	Nyarugenge																			
4	Huye																			
5	Nyanza																			
6	Nyamagabe																			
7	Nyaruguru																			
8	Rubavu																			
9	Karongi																			
10	Ruhango																			
11	Muhanga																			
12	Kamonyi																			
13	Gisagara																			
14	Burera																			
15	Gakenke																			
16	Gicumbi																			
17	Rusizi																			
18	Nyamasheke																			
19	Nyabihu																			
20	Ngororero																			
21	Ngoma																			
22	Bugesera																			
23	Rwamagana																			
24	Kirehe																			
25	Kayonza																			
26	Nyagatare																			
27	Gatsibo																			
28	Rulindo																			
29	Rutsiro																			
30	Musanze																			
31	Kigali																			
32	Kanombe																			

No	Interviewees	Teaching expe- riences							Teaching level		Microteaching			
		None	Short term replacing	0–5	5–10	10–15	15–20	> 20	Nursery	Primary	Secondary	TVET	Yes	No
1	Gasabo													
2	Kicukiro													
3	Nyarugenge													
4	Huye													
5	Nyanza													
6	Nyamagabe													
7	Nyaruguru													
8	Rubavu													
9	Karongi													
10	Ruhango													
11	Muhanga													
12	Kamonyi													
13	Gisagara													
14	Burera													
15	Gakenke													
16	Gicumbi													
17	Rusizi													
18	Nyamasheke													
19	Nyabihu													
20	Ngororero													
21	Ngoma													
22	Bugesera													
23	Rwamagana													
24	Kirehe													
25	Kayonza													
26	Nyagatare													
27	Gatsibo													
28	Rulindo													
29	Rutsiro													
30	Musanze													
31	Kigali													
32	Kanombe													

No	Interviewees		Length of Professional internship										Feeling about teaching ca- reer		
		No	2 weeks	1 month	1 month twice	1.5 months	2 months	3 months	3 months twice	4 months	5 months	6 months	8 months	First choice	Not a first choice
1	Gasabo														
2	Kicukiro														
3	Nyarugenge														
4	Huye														
5	Nyanza														
6	Nyamagabe														
7	Nyaruguru														
8	Rubavu														
9	Karongi														
10	Ruhango														
11	Muhanga														
12	Kamonyi														
13	Gisagara														
14	Burera														
15	Gakenke														
16	Gicumbi														
17	Rusizi														
18	Nyamasheke														
19	Nyabihu														
20	Ngororero														
21	Ngoma														
22	Bugesera														
23	Rwamagana														
24	Kirehe														
25	Kayonza														
26	Nyagatare														
27	Gatsibo														
28	Rulindo														
29	Rutsiro														
30	Musanze														
31	Kigali														
32	Kanombe														

Source: Primary data, 2019

Appendix 5: Coding system

Code System	Frequency
Code System	1790
Pre-requisites for a successful teacher training	0
Pre-requisites for a successful teacher training/ Teaching as a challenging job	3
Pre-requisites for a successful teacher training/ No personal choice	1
Pre-requisites for a successful teacher training/ Education profile of the university	1
Pre-requisites for a successful teacher training/ Lack of working opportunities on the labor market	2
Pre-requisites for a successful teacher training/ Teaching profession downgraded by the com- munity	2
Pre-requisites for a successful teacher training/ ST not willing to become teachers after gradua- tion	1
Pre-requisites for a successful teacher training/ Teaching as a favorite job	28
Pre-requisites for a successful teacher training/ Teaching not seen as a favorite job	15
Pre-requisites for a successful teacher training/ Teaching profession as a favorite job regard- less teachers' low	2
Pre-requisites for a successful teacher training/ Feeling self-confidence in teaching	2

Pre-requisites for a successful teacher training/ Teacher profession as part of lifelong learning	4
Pre-requisites for a successful teacher training/ Teaching profession as a vocation	19
Pre-requisites for a successful teacher training/ Awareness of the importance of learning to become a teacher	0
Pre-requisites for a successful teacher training/Awareness of the importance of learning to become a teacher/Sharing in professional learning communities	1
Pre-requisites for a successful teacher training/Awareness of the importance of learning to become a teacher/ Qualification improvement	11
Pre-requisites for a successful teacher training/Awareness of the importance of learning to become a teacher/Acquisition of knowledge	25
Pre-requisites for a successful teacher training/ Teaching seen as a safe and secure job	3
Pre-requisites for a successful teacher training/ Teaching staff turnover	1
Pre-requisites for a successful teacher training/ System legitimation	0
Pre-requisites for a successful teacher training/System legitimation/Yes	26
Pre-requisites for a successful teacher training/System legitimation/No	2
Theoretical learning situation	0

Theoretical learning situation/Learning approach	0
Theoretical learning situation/Learning approach/Student centred	0
Theoretical learning situation/ Learning approach/Student centred/ Moments for laboratory practices and field trip	3
Theoretical learning situation/ Learning approach/Student centred/ Students involved in teachers'evaluation	1
Theoretical learning situation/ Learning approach/Student centred/ Small class size allowing interaction	1
Theoretical learning situation/ Learning approach/Student centred/ Self-learning facilitated by integration of ICT	1
Theoretical learning situation/ Learning approach/Student centred/ Active participation of students via simulation	2
Theoretical learning situation/ Learning approach/Student centred/ students' accountability for the classification of their file	1
Theoretical learning situation/ Learning approach/Student centred/ Courses content meeting the needs of ST	1
Theoretical learning situation/ Learning approach/Student centred/ Combination of individual and group	2

works	
Theoretical learning situation/ Learning approach/Student centred/ Mentorship system by students	2
Theoretical learning situation/ Learning approach/Student centred/ Attendance control	4
Theoretical learning situation/ Learning approach/Student centred/ Avoidance of rote learning	5
Theoretical learning situation/ Learning approach/Student centred/ Individual assignment / assessment	9
Theoretical learning situation/ Learning approach/Student centred/ Balance between group and individual works	2
Theoretical learning situation/ Learning approach/Student centred/Peer support between strong and weak students	8
Theoretical learning situation/ Learning approach/Student centred/Prior communication in case of teachers'absence or other reason	1
Theoretical learning situation/ Learning approach/Student centred/ Involvement of students in planning courses / exams timetable	3
Theoretical learning situation/ Learning approach/Student centred/ Opportunity for self-study time	7

Theoretical learning situation/ Learning approach/Student centred/ Feeling more comfortable asking colleagues than the teacher	9
Theoretical learning situation/ Learning approach/Student centred/ Individual learning promoted through avoidance of fixed groups	1
Theoretical learning situation/ Learning approach/Student centred/Via group works / oral presentation	33
Theoretical learning situation/ Learning approach/Student centred/Seeing learner centred important	20
Theoretical learning situation/ Learning approach/Student centred/ Possibility of retaking the exam in case of failure	2
Theoretical learning situation/ Learning approach/Student centred/ Provision of time for exam preparation	1
Theoretical learning situation/Learning approach/Teacher centred	0
Theoretical learning situation/ Learning approach/Teacher centred/ Teaching to the test (Day in Zhu et al 2017, p. 102)	9
Theoretical learning situation/ Learning approach/Teacher centred/ Lecture based learning	9
Theoretical learning situation/ Learning approach/Teacher centred/ Tradi-	1

tional conception of assessment	
Theoretical learning situation/ Learning approach/Teacher centred/ Traditional conception of teaching	6
Theoretical learning situation/ Learning approach/Teacher centred/ Dominance of theoretical learning over practical learning	5
Theoretical learning situation/ Learning approach/Teacher centred/ Technical rationality model of teaching	2
Theoretical learning situation/ Learning approach/Teacher centred/ Authoritarian relationship between teacher and students	2
Theoretical learning situation/ Learning approach/Teacher centred/ Traditional understanding of learning	13
Theoretical learning situation/ Learning approach/Teacher centred/Lack of understanding that knowledge is constructed	2
Theoretical learning situation/Learning approach/Mixed approach	9
Theoretical learning situation/Seeing teachers educators as role models	1
Theoretical learning situation/Seeing teachers educators as role models/ Understanding of the need of being a role model as a teacher	3
Theoretical learning situation/Seeing	0

teachers educators as role models/Yes	
Theoretical learning situation/Seeing teachers educators as role models/Yes/For language clarity	2
Theoretical learning situation/Seeing teachers educators as role models/Yes/According to their behaviours	1
Theoretical learning situation/Seeing teachers educators as role models/Yes/Uncommitted teachers	1
Theoretical learning situation/Seeing teachers educators as role models/Yes/Holistic development	1
Theoretical learning situation/Seeing teachers educators as role models/Yes/Providing individual support to students	2
Theoretical learning situation/Seeing teachers educators as role models/Yes/Promoting active participation of students	13
Theoretical learning situation/Seeing teachers educators as role models/Yes/Establishing good learning climate	23
Theoretical learning situation/Seeing teachers educators as role models/Yes/Teacher who promotes teacher centered approach	3
Theoretical learning situation/Seeing teachers educators as role mod-	7

els/Yes/Effective teacher	
Theoretical learning situation/Seeing teachers educators as role models/No	0
Theoretical learning situation/Seeing teachers educators as role models/No/Establishing a bad learning climate	1
Theoretical learning situation/Seeing teachers educators as role models/No/Teachers threatening students	3
Theoretical learning situation/Seeing teachers educators as role models/No/Boring teacher	3
Theoretical learning situation/Seeing teachers educators as role models/No/Uncommitted teachers	4
Theoretical learning situation/Seeing teachers educators as role models/No/Ineffective teacher	8
Theoretical learning situation/Learning aids & materials & facilities	0
Theoretical learning situation/Learning aids & materials & facilities/Not used	0
Theoretical learning situation/Learning aids & materials & facilities/Used	10
Theoretical learning situation/Learning aids & materials & facilities/Available	7
Theoretical learning situation/Learning aids & materials & facilities/Not available / Insufficient quantity	9

Theoretical learning situation/Learning aids & materials & facilities/Modern (Up to date) materials	4
Theoretical learning situation/Learning aids & materials & facilities/Traditional (Out of date) materials	2
Theoretical learning situation/Learning climate	0
Theoretical learning situation/Learning climate/Favourable	12
Theoretical learning situation/Learning climate/Unfavourable	1
Practical learning situation	0
Practical learning situation/Microteaching / Mini teaching	1
Practical learning situation/Microteaching / Mini teaching/Real microteaching	0
Practical learning situation/ Micro- teaching / Mini teaching/Real micro- teaching/Helpful	0
Practical learning situation/ Micro- teaching / Mini teaching/Real micro- teaching/Unhelpful	0
Practical learning situation/Microteaching / Mini teaching/Simulated microteaching	11
Practical learning situation/ Microteaching / Mini teaching/Simulated microteaching/helpful	1
Practical learning situation/ Microteaching / Mini teaching/Simulated	0

microteaching/unhelpful Practical learning situation/Microteaching / Mini teaching/No microteaching Practical learning situation/Microteaching / Mini teaching/Explicit teaching preparation through presenting group works Practical learning situation/Microteaching / Mini teaching/Implicit teaching preparation through presenting group works Practical learning situation/Internship (in company) Practical learning situation/Internship (in company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement) Practical learning situation/Internship
/ Mini teaching/No microteaching Practical learning situation/Microteaching / Mini teaching/Explicit teaching preparation through presenting group works Practical learning situation/Microteaching / Mini teaching/Implicit teaching preparation through presenting group works Practical learning situation/Internship (in company) Practical learning situation/Internship (in company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
/ Mini teaching/Explicit teaching preparation through presenting group works Practical learning situation/Microteaching / Mini teaching/Implicit teaching preparation through presenting group works Practical learning situation/Internship (in company) Practical learning situation/Internship (in company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
/ Mini teaching/Implicit teaching preparation through presenting group works Practical learning situation/Internship (in company) Practical learning situation/Internship (in company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
Company) Practical learning situation/Internship (in company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
company)/Duration Practical learning situation/ Internship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
ship (in company)/Duration/Two weeks Practical learning situation/Internship (school placement)
placement)
Dunctical learning gittaction/Internalsin
Practical learning situation/Internship (school placement)/Duration
Practical learning situation/ Internship (school placement)/Duration/ Extended internship
Practical learning situation/ Internship (school placement)/Duration/ One internship
Practical learning situation/ Internship (school placement)/ Duration/Two internships
Practical learning situation/ Intern-

ship (school placement)/Duration/ Change from two internships to one internship	
Practical learning situation/ Internship (school placement)/Duration/ Non respect of the planned duration by student-teachers	2
Practical learning situation/ Internship (school placement)/Duration/ One month	2
Practical learning situation/ Internship (school placement)/Duration/ One month twice	4
Practical learning situation/ Internship (school placement)/Duration/ One month and a half	2
Practical learning situation/ Internship (school placement)/Duration/ Two months	1
Practical learning situation/ Internship (school placement)/Duration/ Two months and four months	2
Practical learning situation/ Internship (school placement)/Duration/ Three months	3
Practical learning situation/ Internship (school placement)/ Duration/Three months twice	4
Practical learning situation/ Internship (school placement)/ Duration/Four months	1
Practical learning situation/ Intern-	11

ship (school placement)/ Duration/Six months once	
Practical learning situation/ Internship (school placement)/ Duration/Six months theoretically	1
Practical learning situation/ Internship (school placement)/ Duration/8 months	1
Practical learning situation/Internship (school placement)/Satisfaction regarding duration	0
Practical learning situation/ Internship (school placement)/Satisfaction regarding duration/Not enough in case funds available	2
Practical learning situation/ Internship (school placement)/Satisfaction regarding duration/Enough for me	9
Practical learning situation/ Internship (school placement)/Satisfaction regarding duration/Satisfying	0
Practical learning situation/ Internship (school placement)/Satisfaction regarding duration/Not enough	11
Practical learning situation/ Internship (school placement)/Satisfaction regarding duration/Much time	6
Practical learning situation/Internship (school placement)/Time	0
Practical learning situation/ Internship (school placement)/ Time/ During university studies	2

Practical learning situation/ Internship (school placement)/Time/At the end of university studies	3
Practical learning situation/Internship (school placement)/Activities	0
Practical learning situation/ Internship (school placement)/ Activities/ Self-evaluation	2
Practical learning situation/ Internship (school placement)/ Activities/ Observation and getting familiar with the school environment	26
Practical learning situation/ Internship (school placement)/ Activities/ Talks with experienced teachers	3
Practical learning situation/ Internship (school placement)/ Activities/ Development of pedagogical documents	12
Practical learning situation/ Internship (school placement)/ Activities/ Teaching	22
Practical learning situation/ Internship (school placement)/ Activities/ Assessing and marking students	10
Practical learning situation/ Internship (school placement)/ Activities/ Providing feedback to students	4
Practical learning situation/ Internship (school placement)/ Activities/ Participation in extra/curricula activities	0

Practical learning situation/ Internship (school placement)/ Activities/ Meeting with school authorities	0
Practical learning situation/ Internship (school placement)/ Activities/ Supporting learners with good learning climate	1
Practical learning situation/ Internship (school placement)/ Activities/ Action research	6
Practical learning situation/ Internship (school placement)/ Activities/ Writing internship report	8
Practical learning situation/Supervision	0
Practical learning situation/ Supervision/Through collaboration between the mentor & cooperating teacher	2
Practical learning situation /Supervision/ Learning community	2
Practical learning situation /Supervision/ Collaboration between the university and the school	4
Practical learning situation /Supervision/ By university teachers	3
Practical learning situation / Supervision/By university teachers/ Indirect follow up	1
Practical learning situation / Supervision/By university teachers/Help for getting a place for internship	2
Practical learning situation / Super-	10

vision/ By university teachers/For feedback	
Practical learning situation / Supervision/ By university teachers/For awarding marks	10
Practical learning situation / Supervision/ By university teachers/For checking	9
Practical learning situation / Supervision/ By university teachers/One visit	12
Practical learning situation / Supervision/ By university teachers/Two visits	13
Practical learning situation / Supervision/ By university teachers/More than two visits	1
Practical learning situation / Supervision/ By university teachers/No visit	0
Practical learning situation / Supervision/ By cooperating teachers	3
Practical learning situation / Supervision/ By cooperating teachers/For feedback	3
Practical learning situation / Supervision/ By cooperating teachers/ Perceived as a mentor	2
Practical learning situation / Supervision/ By cooperating teachers/ Indirect follow up through learners	1

Practical learning situation / Supervision/ By cooperating teachers/ Close follow up	19
Practical learning situation / Supervision/ By cooperating teachers/ Preparation of teaching materials	2
Practical learning situation / Supervision/ By cooperating teachers/ Documentation	1
Practical learning situation / Supervision/ By school authorities	7
Practical learning situation / Supervision/ By school authorities/ Availability of teaching materials	1
Practical learning situation / Supervision/ By school authorities/ For feedback	2
Practical learning situation / Supervision/ By school authorities/ For checking pedagogical documents	3
Practical learning situation / Supervision/ By school authorities/Follow up	6
Practical learning situation / Supervision/ By school authorities/ In giving instructions	1
Practical learning situation / Supervision/ By school authorities/ For awarding marks	6
Practical learning situation / Supervision/ By school coordinating mentor	18

Practical learning situation/ Treatment of stu- dent-teachers by schools	0
Practical learning situation/ Treatment of student-teachers by schools/ Effective treatment	15
Practical learning situation/ Treatment of student-teachers by schools/ Ineffective treatment	0
Practical learning situation/ Treat- ment of student-teachers by schools/ Ineffective treatment/ Restriction to fulfill some pedagogical duties	1
Practical learning situation/ Treat- ment of student-teachers by schools/ Ineffective treatment/ Limited free- dom of expression	2
Practical learning situation/ Treatment of student-teachers by schools/ Ineffective treatment/ Threatening control	4
Practical learning situation/Meaning of internship by student-teacher	0
Practical learning situation/Meaning of internship by student-teacher/Learning situation	30
Practical learning situation/Meaning of internship by student-teacher/Working situation	1
Practical learning situation/Meaning of internship by student-teacher/Corruption of learners by student teacher to get marks	1

Practical learning situation/Meaning of internship by student-teacher/Fulfillment of academic requirements/Getting marks	5
Practical learning situation/Meaning of internship by university teachers	0
Practical learning situation/Meaning of internship by university teachers/Assessment/Giving marks to student-teachers	9
Practical learning situation/Problems faced during internship	0
Practical learning situation/Problems faced during internship/Situational problem	2
Practical learning situation/Problems faced during internship/Unfavourable working conditions	3
Practical learning situation/Problems faced during internship/Difficult to find teaching materials	2
Practical learning situation/Problems faced during internship/No reflective teaching	6
Practical learning situation/Problems faced during internship/Observation period not enough	1
Practical learning situation/Problems faced during internship/Punctuality of learners	3
Practical learning situation/Problems faced during internship/Lack/insufficient number of learning materials	5

Practical learning situation/Problems faced during internship/Curriculum not adapted to the level of secondary students	1
Practical learning situation/Problems faced during internship/Limited follow up by cooperating/university teachers	6
Practical learning situation/Problems faced during internship/language barrier in French/English (Medium of instruction)	6
Practical learning situation/Problems faced during internship/Lack of internship prior preparation	1
Practical learning situation/Problems faced during internship/Schools located in unconducive environment	5
Practical learning situation/Problems faced during internship/Difficult to match internship with regular work	3
Practical learning situation/Problems faced during internship/Adaptation to a new situation	2
Practical learning situation/Suggestion for effective teaching practice	1
Practical learning situation/Suggestion for effective teaching practice/Have one long internship period	3
Practical learning situation/Suggestion for effective teaching practice/Separation of internship from learning period	1
Practical learning situation/Suggestion for effective teaching practice/Provision of	1

incentives to school based mentors	
Practical learning situation/Suggestion for effective teaching practice/Partnership between universities and schools	2
Practical learning situation/Suggestion for effective teaching practice/ Involvement of students in allocation of schools	1
Practical learning situation/Suggestion for effective teaching practice/Early starting for effective combination between internship and	1
Practical learning situation/Suggestion for effective teaching practice/Give internship a learning character instead of assessment one	2
Practical learning situation/Suggestion for effective teaching practice/Need of reflecting teaching for succeeding in in- ternship	0
Practical learning situation/Suggestion for effective teaching practice/Provision of similar materials to all students teachers	1
Practical learning situation/Suggestion for effective teaching practice/Provision of incentives to ST	4
Practical learning situation/Suggestion for effective teaching practice/Less time internship but effective	1
Practical learning situation/Suggestion for effective teaching practice/Need of conceptual change about mother tongue	1
Practical learning situation/Suggestion	3

for effective teaching practice/Seeing the need of "Ecoles d'Application"	
Practical learning situation/Suggestion for effective teaching practice/Need of formative teaching practice	2
Practical learning situation/Suggestion for effective teaching practice/Recap session on the purpose and requirements of internship	1
Practical learning situation/Suggestion for effective teaching practice/Close follow up by universities	5
Understanding of feedback	0
Understanding of feedback/High understanding	5
Understanding of feedback/Medium understanding	0
Understanding of feedback/Medium understanding/Feedback of students to the teachers	3
Understanding of feedback/Medium un- derstanding/Understanding that feedback can take different forms	2
Understanding of feedback/Medium understanding/Understanding that feedback should balanced	2
Understanding of feedback/Medium understanding/Understanding the effect of late feedback on learning	3
Understanding of feedback/Medium understanding/Understanding the necessity	1

of collective feedback	
Understanding of feedback/Low understanding	0
Understanding of feedback/Low understanding/Confused ideas	2
Understanding of feedback/Low under- standing/As a component of communica- tion process	10
Understanding of feedback/Low under- standing/Limited to provision of marks	19
Kind of feedback	0
Kind of feedback/Transparence in giving marks	1
Kind of feedback/Existence of regulations about provision of feedback to student	11
Kind of feedback/Ways of communicating feedback	0
Kind of feedback/Ways of communicating feedback/Not done	1
Kind of feedback/Ways of communicating feedback/Ordinal feedback	1
Kind of feedback/Ways of communicating feedback/Traditional feedback	0
Kind of feedback/Ways of communicating feedback/Traditional feedback/Oral	34
Kind of feedback/Ways of communicating feedback/Traditional feedback/Written	0

Kind of feedback/Ways of com- municating feedback/ Tradition- al feedback/Written/ Marking scheme	1
Kind of feedback/Ways of com- municating feedback/ Tradition- al feedback/Written/Transcripts	1
Kind of feedback/Ways of com- municating feedback/ Tradition- al feedback/Written/ Examina- tion paper	13
Kind of feedback/Ways of com- municating feedback/ Tradition- al feedback/Written/List of marks / results posted	31
Kind of feedback/Ways of communicating feedback/ Traditional feedback/Written/List of marks / copies through an intermediary person	6
Kind of feedback/Ways of communicating feedback/Traditional feedback/Non-verbal / gestures	2
Kind of feedback/Ways of com- municating feedback/ Tradition- al feedback/Non-verbal / ges- tures/Rewards	2
Kind of feedback/Ways of communicating feedback/Electronic feedback	20
Kind of feedback/Modes of providing feedback	0
Kind of feedback/Modes of providing feedback/To individual students while	1

	1
working in groups and presentation	
Kind of feedback/Modes of providing feedback/To individual students	3
Kind of feedback/Modes of providing feedback/To a small group of students	1
Kind of feedback/Modes of providing feedback/Collective feedback	8
Kind of feedback/Source of feedback	0
Kind of feedback/Source of feedback/ Teacher feedback	5
Kind of feedback/Source of feedback/ Teacher feedback in case of collective problem	2
Kind of feedback/Source of feedback/Self feedback in case of individual problem	1
Kind of feedback/Source of feedback/Self feedback	7
Kind of feedback/Source of feedback/Peer feedback	7
Kind of feedback/Quality of feedback	0
Kind of feedback/Quality of feedback/ Constructive feedback	0
Kind of feedback/Quality of feed- back/Constructive feedback/Specific	16
Kind of feedback/Quality of feed- back/Constructive feedback/ Imme- diate /timely	42
Kind of feedback/Quality of feed- back/Constructive feedback/Helpful	19

/ establishing a climate of trust (respect)	
Kind of feedback/Quality of feed- back/Constructive feedback/Quantity regulated / manageable	1
Kind of feedback/Quality of feed- back/Constructive feedback/Factual	1
Kind of feedback/Quality of feed- back/Constructive feedback/ Objec- tive / Criteria based	2
Kind of feedback/Quality of feed- back/Constructive feedback/Balanced	11
Kind of feedback/Quality of feed- back/Constructive feedback/ Descrip- tive	0
Kind of feedback/Quality of feed- back/Constructive feedback/ Solu- tion-oriented / Directed towards changeable behaviour	10
Kind of feedback/Quality of feed- back/Constructive feedback/Solicited by students	19
Kind of feedback/Quality of feed- back/Constructive feedback/ Encour- aging / motivating	8
Kind of feedback/Quality of feed- back/Destructive feeback	0
Kind of feedback/Quality of feed- back/Destructive feeback/General	9
Kind of feedback/Quality of feed- back/Destructive feeback/Late	25

Kind of feedback/Quality of feed- back/Destructive feeback/Unhelpful	2
Kind of feedback/Quality of feed- back/Destructive feeback/Accusatory	0
Kind of feedback/Quality of feed- back/Destructive feeback/Personal	0
Kind of feedback/Quality of feed- back/Destructive feeback/Judgmental	0
Kind of feedback/Quality of feed- back/Destructive feeback/Subjective / Not based of criteria	1
Kind of feedback/Quality of feed- back/Destructive feeback/Evaluative	2
Kind of feedback/Quality of feed- back/Destructive feeback/Imposed	18
Kind of feedback/Quality of feed- back/Destructive feeback/ Discourag- ing	3
Kind of feedback/Feedback content	0
Kind of feedback/Feedback content/ During learning process	0
Kind of feedback/Feedback content/During learning process/Deep feedback	1
Kind of feedback/Feedback content/During learning process/ Superficial feedback	1
Kind of feedback/Feedback content/ During teaching practice	0

Kind of feedback/Feedback content/During teaching practice/Deep feedback	2
Kind of feedback/Feedback content/During teaching practice/Deep feedback/From university teachers	10
Kind of feedback/Feedback content/During teaching practice/Deep feedback/From cooperating teacher / mentor	11
Kind of feedback/Feedback content/During teaching practice/Superficial feedback	1
Kind of feedback/Feedback content/During teaching practice/Superficial feedback/Fromuniversity teachers	9
Kind of feedback/Feedback content/During teaching practice/Superficial feedback/From cooperating teacher / mentor	10
Kind of feedback/Treatment during feedback provision	0
Kind of feedback/Treatment during feed- back provision/Positive treatment	2
Kind of feedback/Treatment during feedback provision/Positive treat- ment/Possibility to ask for feedback when it delays	1
Kind of feedback/Treatment during feedback provision/Positive treat-	18

	ment/Possibility to complain when not satisfied with obtained marks
25	Kind of feedback/Treatment during feedback provision/Positive treat- ment/Alowing students to ask ques- tions
1	Kind of feedback/Treatment during feed- back provision/Negative treatment
1	Kind of feedback/Treatment during feedback provision/Negative treat- ment/Only publication of marks denying opportunity for self-feedback
15	Kind of feedback/Treatment during feedback provision/Negative treat- ment/Unfavourable conditions for seeking feedback
4	Kind of feedback/Treatment during feedback provision/Negative treat- ment/Teachers not available to an- swer students'questions
0	Importance of feedback on the quality of teaching and learning
0	Importance of feedback on the quality of teaching and learning/Aware
1	Importance of feedback on the quality of teaching and learning/Aware/ Transparency of marking process
10	Importance of feedback on the quality of teaching and learning/Aware/Motivation for subsequent learning
2	Importance of feedback on the quality of teaching and learning/Aware/Searching

for causes of failure	
Importance of feedback on the quality of teaching and learning/Aware/To prepare well for subsequent assessment	11
Importance of feedback on the quality of teaching and learning/Aware/For teaching and learning subsequent lessons	2
Importance of feedback on the quality of teaching and learning/Aware/Being able to identify strengths and weaknesses	10
Importance of feedback on the quality of teaching and learning/Aware/ Consequences of late feedback	3
Importance of feedback on the quality of teaching and learning/Aware/Importance of timely feedback	5
Importance of feedback on the quality of teaching and learning/Aware/Seeing seeking for feedback important for learning process	4
Importance of feedback on the quality of teaching and learning/Aware/Knowing the learning progress	2
Importance of feedback on the quality of teaching and learning/Not aware	0
Importance of feedback on the quality of teaching and learning/Appreciation	0
Importance of feedback on the quality of teaching and learning/No appreciation	1
Challenges related to teacher education	0

Challenges related to teacher education/ Related to student-teachers	0
Challenges related to teacher education/Related to student-teachers/ Difficult to afford the living standards	1
Challenges related to teacher education/Related to student-teachers/ Underestimation of the role of feedback in learning process	2
Challenges related to teacher education/Related to student-teachers/ Combination of university courses and regular work	3
Challenges related to teacher education/Related to student-teachers/ Mistrusting teachers regarding marking examination papers	4
Challenges related to teacher education/Related to student-teachers/ Misjudgment of feedback from teachers without specialization	1
Challenges related to teacher education/Related to student-teachers/More focus on formal aspects than acquisition of competences	3
Challenges related to teacher educa- tion/Related to student-teachers/ Compla- cency of students with prior specialization	7
Challenges related to teacher education/Related to student-teachers/ Difficult for integrating in a socio-economic diversity group	2

Challenges related to teacher education/ Related to student-teachers/Seeing paying tuition fees enough for learning	3
Challenges related to teacher education/Related to student-teachers/Culture of marks avoiding seeing feedback a source of learning	20
Challenges related to teacher education/Related to student-teachers/ Language background seen as a learning barrier	2
Challenges related to teacher education/Related to teacher educators	0
Challenges related to teacher educa- tion/Related to teacher educators/ Misun- derstanding of learner centered approach	1
Challenges related to teacher educa- tion/Related to teacher educators/ Prob- lem related to language clarity	1
Challenges related to teacher educa- tion/Related to teacher educators/ Prob- lem related to time management	1
Challenges related to teacher education/Related to teacher educators/Subject related didactics modules taught by unqualified teacher	1
Challenges related to teacher educa- tion/Related to teacher educators/No link between theories to real life situations	1
Challenges related to teacher education/ Related to teacher educators/Lack of indi- vidual support in case of personal failure	1

Challenges related to teacher education/ Related to teacher educators/Destructive feedback creating a climate of mistrust to teachers	1
Challenges related to teacher education/ Related to teacher educators/List of marks not enough for feedback	1
Challenges related to teacher education/ Related to teacher educators/Delayed feedback seen as an obstacle to learning process	3
Challenges related to teacher education/ Related to teacher educators/Lack of transparent standards of assessment	1
Challenges related to teacher education/Related to teacher educators/Culture of marks avoiding seeing feedback as a source learning	23
Challenges related to teacher education/Related to teacher educators/Difficult to manage big class and workload for timely feedback	5
Challenges related to teacher education/ Related to institutions	0
Challenges related to teacher education/ Related to institutions/Delayed reception of feedback due to low quality system	1
Challenges related to teacher education/ Related to institutions/Non-qualified teachers	2
Challenges related to teacher education/ Related to institutions/Absence of the	1

	
concept of feedback in ta	aught content
Challenges related to t Related to institutions, tween universities and l	/Relationships be-
Challenges related to t Related to institutions/ ing conditions	
Challenges related to t Related to institutions/I	·
Challenges related to t Related to institutions planning courses'timeta	/Inconsistency in
Challenges related to t Related to institutions, tion / spontaneous ch timetable	/Late communica-
Challenges related to t Related to institutions/0 fees at exam time distur	Controlling tuition
Challenges related to t Related to institutions/ teaching practices	
Challenges related to t Related to institutions high teachers workload	
Challenges related to t Related to institutions/ attendance control	·
Challenges related to t Related to institutions formal aspects than acq tences	s/More focus on

Challenges related to teacher education/ Related to institutions/Lack of common standards in the provision of feedback	1
Challenges related to teacher education/ Related to institutions/Unrealistic timeta- ble for part-time program	4
Challenges related to teacher education/ Related to institutions/Management of students with various educational back- ground	0
Challenges related to teacher education/ Related to institutions/Orientation as a problem to effective learning	1
Challenges related to teacher education/ Related to institutions/Lack of a common standards in teaching, learning and as- sessment	5
Challenges related to teacher education/ Related to institutions/More focus on quantity instead of quality	2
Challenges related to teacher education/ Related to institutions/Management of students transition to university level	1
Challenges related to teacher education/ Related to institutions/Communication of marks used for administrative formal as- pects	1
Challenges related to teacher education/ Related to institutions/Structure leading to superficial area of specialization	1
Challenges related to teacher education/ Related to institutions/Lack / insufficient	3

follow up of students during internship	
Challenges related to teacher education/ Related to institutions/High intensifica- tion of courses for part-time programs	7
Challenges related to teacher education/ Related to institutions/Management of part-time student-teachers	3
Challenges related to teacher education/ Related to the context	0
Challenges related to teacher education/ Related to the context/Low living condi- tions of teachers as a demotivating factor	4
Challenges related to teacher education/ Related to the learning environment	1
Suggestions for effective teacher education	0
Suggestions for effective teacher education/ Qualification of teacher educators to be con- sidered	1
Suggestions for effective teacher education/ Need of parents' follow up even at university level	2
Suggestions for effective teacher education/ Professionalisation of education sector	2
Suggestions for effective teacher education/ Improvement of teachers'living standards	1
Suggestions for effective teacher education/ Harmonization of courses	6
Suggestions for effective teacher education/ Plan continuous professional development for teachers	1

Suggestions for effective teacher education/ Rework the combinations at Faculty level	1
Suggestions for effective teacher education/ Need of an institution training TVET teachers in education	1
Suggestions for effective teacher education/ Realistic timetable for part-time programme	3
Suggestions for effective teacher education/ Build professional conscioussness spirit among students teacher	3
Suggestions for effective teacher education/ Collaboration between universities and the labour market	1
Suggestions for effective teacher education/ Avoidance of big class size	2
Suggestions for effective teacher education/ Improve the quality of infrastructure for effec- tive learning	3
Suggestions for effective teacher education/ Regular availability of teachers	1
Suggestions for effective teacher education/ Have a long time internship	1
Suggestions for effective teacher education/ Have exam at the end of each module	1
Suggestions for effective teacher education/ Timely communicated timetable	1
Suggestions for effective teacher education/ Have one full school year internship but fi- nanced	1
Suggestions for effective teacher education/	4

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	Contextualization of teacher education	
	Suggestions for effective teacher education/ Admission conditions to be well defined and respected	2
	Suggestions for effective teacher education/ Recruit assistants to support teachers for time- ly feedback	1
	Suggestions for effective teacher education/ Serious attendance control to ensure effective learning	2
	Suggestions for effective teacher education/ Education reforms well-prepared and reflected on	1
	Suggestions for effective teacher education/ See examination papers	7
	Suggestions for effective teacher education/ Provision of constructive feedback	8
	Suggestions for effective teacher education/ Role modelling by teacher educators	7
	Suggestions for effective teacher education/ More focus on experiential learning	22
	Suggestions for effective teacher education/ Conceptual change by education about inclusion	2
	Suggestions for effective teacher education/ Programme that transforms student-teachers into good leaners	3
	Suggestions for effective teacher education/ Restructure of part-time teacher training pro- grammes	3
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Suggestions for effective teacher education/ Make internship compulsory for all student- teachers

This study focused on investigating the learning situation of student teachers especially their experiences on feedback they receive during their study time including teaching practice. It was conducted in Rwanda. The study was guided by the theories on educational quality which, on one side, places teacher education at the central position of ensuring effective teaching and learning process. In this line, effective training to make sure that teachers are taught in the same way they are expected to teach is essential. On the other side, feedback, which is an important element of the learning engine, is indicated necessary for ensuring that student teachers learn from a conducive environment. This study intended to answer the research question "How does teacher education look like regarding feedback in the Rwandan context?". To answer this research question, the study was conceptualized as a qualitative research where semi-structured interviews were conducted with 32 student teachers who have been selected using a theoretical sampling strategy from 13 Rwandan Higher Learning Institutions. Data collection was done in combination with data analysis to maximize all the qualities in the field.

Qualitative content analysis using intertwined deductive-inductive approach has been used for data analysis. With abduction process, a deep analysis of the empirical data led to the definition of criteria and then ideal types of feedback experienced by student teachers in Rwanda. With this analysis, three types of feedback namely administrative feedback, correctional feedback, and instructional feedback emerged. Further analysis showed that student teachers in Rwanda experience different forms of feedback. They have divergent understandings of feedback. Delayed feedback leads to increased uncertainty among students, communication of feedback creates different forms of relationships between student teachers and teacher educators. In addition, student teachers learn implicitly from teacher educators how to provide feedback, and there are no common standards regarding internships. The analysis of the results of this study with regard to the discourse on teacher education, feedback, and educational quality indicates that feedback in teacher education has a multidimensional effect.



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