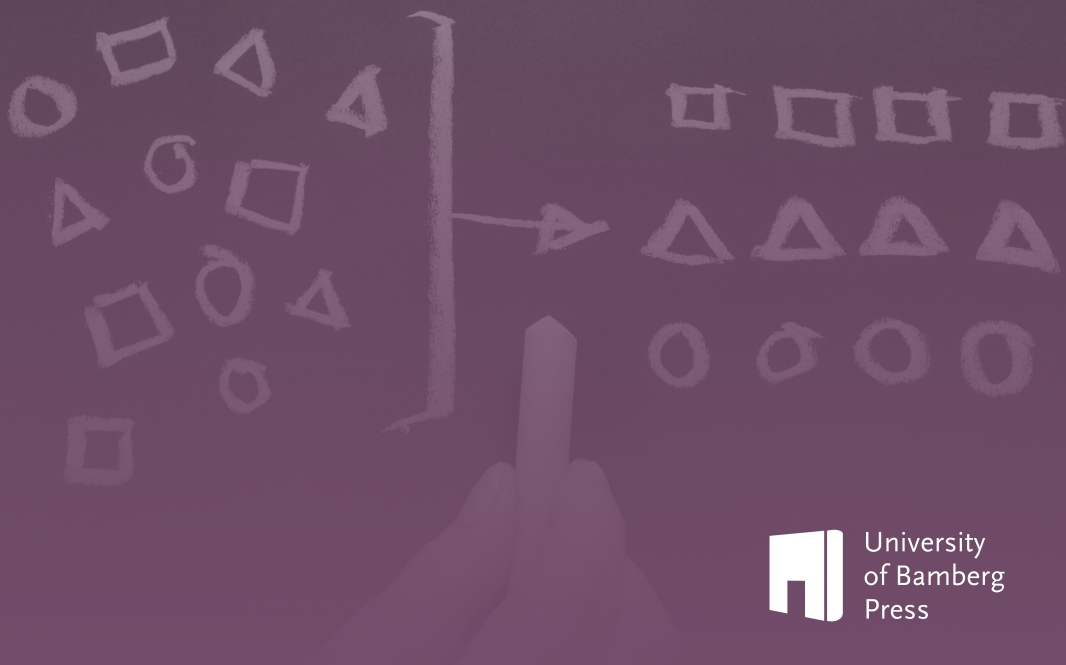


Charles Gahutu

Perceptions of teachers
on the change in schooling
An empirical case study of Rwanda



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Abstract

This study was undertaken to investigate the perceptions of teachers on change in schooling in Rwanda. It is contextualized in the After-Genocide period marked by a host of social and economic transformations. Again, the world is experiencing manifold changes which reshape social relations, individual and societal needs, the structure of the labour market and the understanding of life. Decision-makers respond to this dynamic setting by changing the organization and provision of education. However, there are still claims, not only in Rwanda, that the educational delivery is still to adjust to the requirements of the challenging environment (Darling-Hammond 2012, p. 21-22; OECD 2001, p. 124). Some educationists go as far as to suggest that, despite efforts thus far, the teaching practice does not change (Namara 2018, p. 114; Lackamp 2016, p. 112; McLean Hilker 2010; p. 16). Education change is a growing field in Rwanda but it is marked by a considerable gap in research. By giving voice to teachers, this research brings to the fore their perceptions about the change and sets the foundations for further scientific discourse and policy design improvement.

The guiding research question is “What are the perceptions of Rwandan teachers on change in schooling amid a changing environment?” From the main research question, three sub-questions were developed and they specifically address the perceptions of teachers about the change in schooling, the perceptions of teachers on the changing world and the perceived challenges to the change in schooling. The nature of this study calls for a qualitative design, which fits the exploration of how teachers perceive the phenomenon of change (Moser & Korstjens 2017, p. 271; Cropley 2015, p. 38-39; Spencer et al. 2003, p. 3). To achieve this, 30 teachers were given room to share their perceptions of change through semi-structured interviews (Cropley 2015, p. 84; Savin-Baden & Major 2013, p. 357). Three waves of interviews were organized by the researcher and the theoretical sampling strategy was used to select research participants (Moser & Korstjens 2017, p. 3; Coyne 1997, p. 628). The selection of interviewees was done based on criteria related to teachers’ personal, educational and professional backgrounds which helped to get a rich dataset from a variety of teachers. Interviews were done in Kinyarwanda; this entailed additional work of transcription and translation into English. Content analysis was used to get the meaning of the data collected from the field (Leedy & Ormrod 2021; Schreier 2012; Prasad 2008). It was done concomitantly with the process of data collection in an iterative way

(Creswell 2012, p. 433; Mason 2002, p. 138). Pragmatically, deductive and inductive reasoning helped in the process of data analysis, especially by assigning codes (Creswell 2012; Schreier 2012) to the data. Upon coding, the researcher resorted to abductive reasoning to get meaning out of the data (Mitchell 2018; Mills et al. 2010). The interpretation group supported the whole process of working on the data for the sake of intersubjectivity and quality assurance (Creswell & Poth 2018; Saldana 2009).

Referring to the research questions guiding the research process, a number of findings were reached. Those include (1) the perception of the change in three different ideal types (the instrumental understanding of the change as policy-oriented for a stable society, the vacillating understanding of the change as context adaptation-oriented for integration into the global world and the functional understanding of the change as human capital investment-oriented for a knowledge society) with different potentials to promote change. This is the core of the findings; however, other significant results were reached, as well. Those include (2) the perception of the change as differentiated in the emergent and Government-reaction changes; (3) the perception of the change by shared criteria; (4) the perception of change between mechanisms of prescriptivity and self-directivity; (5) a strong perception of prescriptivity coupled with a sense of helplessness; (6) the perception of self-directivity and teachers' agency as supports to the change management on the side of the teachers; (7) a differing perception of the changing world between optimism and pessimism (8) the perception of the changing environment as a threat and (9) a vicinity-bound perception of global challenges.

These findings have been discussed in line with theories of teachers' agency in change, school improvement, and globalization. This study contributes to the discourse by highlighting three main aspects. First, in the context of intensive mandated educational change, the concern for students' learning is a lever for teachers' agency. Their positioning can take either compliance, accommodation, or appropriation forms. Second, with all due respect to the efforts thus far made to reorganize education, change is still a necessity. In the current setting of complexity and uncertainty, the idea of the relevance of learning must be reflected in changes in education. This means that students' relevant learning associated with meaningful teachers' professionalization is of key importance. Third, there is a perception that Globalization has a significant impact on the landscape of educational change. However, it is felt as a threat to social order. Therefore, in a situation of intensive cultural encounters and the

growth of knowledge, there is a need for change to consider both the cultural maintenance and the social transformation functions of education.

With these findings, this research contributes to the growth of knowledge, but it lays the foundations and opens up new avenues for further studies on change. The typology generated by this study represents hypotheses that require further exploration through quantitative research. Similarly, this study provides policymakers with sources to draw on while designing changes in schooling.

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Bamberg, July 2023

Charles Gahutu

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List of abbreviations and acronyms

9YBE:	Nine Years Basic Education
12YBE:	Twelve Years Basic Education
CBC:	Competency-Based Curriculum
CBT:	Competency-Based Training
EAC:	East African Community
EDC:	Educational Development Centre
EDPRS:	Economic Development and Poverty Reduction Strategies
GPE:	Global Partnership for Education
ICT:	Information and Communication Technology
IPAR:	Institute of Policy Analysis and Research
KBC:	Knowledge-Based Curriculum
MINEDUC:	Ministry of Education
NACCCE:	National Advisory Committee on Creative and Cultural Education
NCDC:	National Curriculum Development Centre
NCTE:	National Council of Teachers of English
NER:	Net Enrolment Rate
NST:	National Strategy for Transformation
NURC:	National Unity and Reconciliation Commission
OECD:	Organization of Economic Cooperation and Development
RP:	Rwanda Polytechnic
REB:	Rwanda Education Board

SBT:	Sector-based Trainer
TTC:	Teacher Training Centre
TVET:	Technical and Vocational Education and Training
UNESCO MGIEP:	UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development
UNRISD:	United Nations Research Institute for Social Development
VUP:	Vision Umurenge Program
WDA:	Workforce Development Authority

1 Introduction

This study seeks to investigate the perceptions of teachers on change in schooling. It is contextualized in Rwanda, a country where the educational system was affected by various changes since the turn of the millennium. It is worth noting that the time in question is a period when both the education system, as a whole, and education change as a field were being affected by the developments happening in the world. The rationale behind this study is understood when one considers the current necessity of educational change, on the one hand, and the role expected to be played by teachers in the change in schooling, on the other hand.

First, I buy into the idea that education prepares the youth for the particular requirements of their specific environment. Second, in the framework of educational change, the belief is that perspectives of educational actors about change need to be considered along the way and they are likely to play a determining role when it comes to change success or failure. Bearing in mind the central role played by teachers in the education system, in general, and in educational change, in particular, this study sets out to understand how they digest changes undertaken in schooling in the framework of a changing world. The study focuses on changes which took place in Rwanda within the last 20 years from 2000 up to 2020. As the chapter unfolds, the changing nature of the Rwandan educational system is highlighted. Similarly, the context in which educational changes happen is depicted by focussing on the whole society's transformation agenda and the place of education in that agenda. Later on, the problem is stated, the research methodology is outlined and the research questions are highlighted.

1.1 Background of the Rwandan education system

Formal education was introduced in Rwanda during the period when the country was under German colonial power in the early 20th century. The system expanded during the Belgian colonial time where its purpose was to provide basic schooling to the masses and a post-primary education to train a Rwandan clergy needed by administrators for Belgian rule (McLean Hilker 2011, p. 268). Schooling in Rwanda has been claimed to evolve from being a "Church-led activity" (Williams 2017, p. 2) to a system predominantly driven by the state. Improvements were recorded when the

country got its independence back in 1962 as the access to primary education was more or less expanded; however, it failed to keep pace with the population growth. As far as secondary education is concerned, the limited number of places and its relatively high cost in both Government and non-Government schools made it look as only reserved to the youth coming from wealthy elite families (McLean Hilker 2011, p. 269; Obura 2003, p. 41). From then on, the education system has gone through a number of stages serving different purposes in compliance with the leadership in place. In view of the build-up which led to the Genocide perpetrated against the Tutsi in 1994, there is a shared observation that the Rwandan education system has failed the country (Williams 2018). The point is that schools played a significant role in the lead-up to the 1994 Genocide¹ (McLean Hilker 2011, p. 268). In the aftermath of the Genocide, education was also considered as a key to the process of national reconstruction (NURC 2016, p. 656; Mafeza 2013, p. 5). To this end, a wave of changes have been undertaken generating ambivalent opinions in regard to their overall achievements. In the following paragraphs, the background of the Rwandan education system is discussed by highlighting its changing nature (chapter 1.1.1) in line with the national transformation agenda (chapter 1.1.2).

1.1.1 A changing education system

The changing nature of the Rwandan educational system mirrors the overall trend which has been driving educational policies especially since a couple of decades ago. The Government of Rwanda has been re-examining some aspects of its provision of schooling to the youth particularly in the aftermath of the Genocide perpetrated against the Tutsi in 1994. Several educational policies were introduced targeting the language of instruction, the improvement of quality, the structure of the system, inclusion, as well as teachers' training and professionalization (Mbarushimana & Kuboja 2018; Williams 2018; p. 1; McLean Hilker 2010; p. 2). Several fragmented changes happened in the educational system giving rise to a variety of reactions and feelings on the side of stakeholders including teachers, students, parents and others. These waves of changes reflected a political will to ensure a fair distribution of available opportunities and

¹ There is a common belief among Rwandan academics, politicians and media that schools played a significant role in conceiving and dissemination the Genocidal ideology.

to ascertain the role of education as a key factor to foster national transformation and get the country engaged in all sorts of competitions associated with the changing world. In the following paragraphs, the main educational changes which took place in the system are discussed by highlighting the echoes they made to the discourse.

The shift of the language of instruction

In 2009, a crucial change affected the language of instruction shifting from French to English as was decided by the Rwandan Government in 2008 (Niyibizi 2010, p. 46). The idea was to adopt English as a medium of instruction while French remained as a subject to be taught (Uwambayinema 2013). The use of French as a medium of teaching dates back to the Belgian colonial era in the early 1900s. Since 1962, the time when Rwanda got its independence from Belgians, French was recognized as the official language alongside Kinyarwanda (mother tongue) and was acknowledged as the language of instruction. After the genocide of 1994, English was introduced as a third official language. This trilingualism was seen as necessary as more than 850,000 refugees and expatriates returned from exile with different language backgrounds (Uwambayinema 2013, p. 1; Niyibizi 2010, p. 45; Rosendal 2009, p. 22). In 2009, the position of English was enhanced as it became the language of instruction, thusly replacing French. The change to English as the medium of instruction had to start in the academic year 2009 and was expected to be completed by 2011 when all subjects were likely to be taught in English at all levels of the educational system (Niyibizi 2010, p. 46).

The move was motivated by economic reasons (World Bank 2011; Niyibizi 2010, p. 117; Samuelson & Freedman 2010, p. 192), the Government's commitment to strengthen strategic ties with neighbours (Williams 2017, p. 558; Eger 2016, p. 36; Niyibizi 2010, p. 117; Lynd 2010, p. 17), and by the globalization trend (Kagwesage 2013, p. 2). Rwandan Government officials considered English as a language of preference to be used not only in education but in business and information technology as well. Rwanda joined the East African Community (EAC) in 2007 and became a member of the Commonwealth in 2009 though it had never been colonized by the British Empire (Uwambayinema 2013, p. 11). In line with that move, English was envisaged as an important vehicle for international relations, trade and socio-economic development and as a gateway to the global knowledge economy (JICA 2012, p. 33). Therefore,

English proficiency was considered to be a key to the effective integration and active participation of Rwandans in those international communities. Some researchers suggested other reasons behind the language change including the Government's commitment to cut ties with the French Government amid the deterioration of diplomatic relations between both governments (Williams 2017, p. 8; Eger 2016, p. 36; McLean Hilker 2011, p. 276). This change entailed further adjustments of the whole system and it affected the whole teaching and learning system.

The change of the language of instruction has attracted the attention of both researchers by its uniqueness and donors as they were worried about the change's impact on overall educational performance. A growing body of studies pointed out that the change of the medium of instruction brought about serious challenges for both, teachers and students. Lack of English language proficiency among teachers posed a big challenge to learning (World Bank 2019, p.31; Uwambayinema, 2013, p. 38; Niyibizi 2010, p. 128; Lynd 2010, p. 18), as the majority of teachers had no formal education in English at the onset of the change (Uwambayinema 2013, p. 39). Consistent with these results, Williams (2018, p. 13) suggested that the shift of language has contributed to a learning crisis thusly posing a challenge to the country's aim of inclusive development. Generally, research findings claimed that the use of foreign languages in Rwanda has contributed to national disunity with rural students particularly, and especially rural girls being disadvantaged (Kweku & Walker 2018, p. 43). Students' exposure to English was found to be limited especially in rural areas (Lynd 2010, p. 18), which poses a serious challenge to the mastery of English in particular and the whole learning at large. Some research findings highlight that the shift of language presented a shock to primary education as it happened while education actors were not well prepared for it (Williams 2017, p. 557). A capacity gap was observed and the need to develop human capacity as a part of the implementation of language policy has been highlighted (Kweku & Walker 2018, p. 45). Poor teachers' proficiency in English was also singled out to impact negatively the quality of education and, in turn, the completion of studies by students (World Bank 2019; IPAR Rwanda 2014, p. 48).

Statistically speaking, while a share of 1,9 % of Rwandans could speak English when the change got underway (Niyibizi 2010, p. 131), a study carried out by the British Council in 2009 found that 85% of primary teachers and 66% of secondary teachers only had the beginner, elementary and pre-intermediate levels of English (Lynd 2010, p. 18). Later on,

evidence showed that, by 2012, very few teachers (2.8 %) involved in a study reached the lower intermediate level of English proficiency known as B1 (HEART 2013, p. 46) and by 2015, only 43 % had the intermediate level of competency in English (Clist et al. 2015 cited by World Bank 2018, p. 31). The existence of a clear capacity gap was reported with the rural area being at a disadvantage (Kweku & Walker 2018, p. 45). As a result, while they pretend to use English as a medium of instruction, it was found that some teachers consistently use Kinyarwanda as the language of communication in their teaching² (Uwambayinema 2013, p. 49).

Cognizant of the magnitude of the challenge, several mitigating strategies were adopted by the Rwandan Government. Intensive language training were organized nationwide (World Bank 2019, p. 31) and most of them were facilitated by teachers who were hired from neighbouring English-speaking countries. However, teachers' motivation to participate in training was not high as some of the training were organized in holidays and teachers were not granted training allowances. Furthermore, their heavy weekly teaching workload proved to be a hindrance to all efforts of self-professionalization. However, some teachers had no alternative other than to take English language courses in private if they wanted to keep their job (Uwambayinema 2013, p. 21; Niyibizi 2010, p. 118). To this end, primary and secondary education teachers had to take night and week-end classes in English, with some of them learning what they would transmit to their students the next day (Uwambayinema 2013, p. 21). To maintain the outcomes of the training, a mentorship program was established at the school level in the framework of continuous professional development. Another challenge to the implementation of language change is linked to the language environment in Rwanda which is not conducive to the mastery of English as the daily communication in Rwanda is mediated by the mother tongue Kinyarwanda. Moreover, some teachers were worried about the change as they thought they would be kicked off the job as a result of their failing to cope with it and this fear created a great resistance to language policy change (Uwambayinema 2013, p. 18).

² In Rwanda, the official language of instruction is English. However, due to the lack of English proficiency for some teachers, the learning content is prepared in English but its presentation and the whole communication is done in the mother tongue, Kinyarwanda which is easy for both teachers and students.

Pedagogical changes

As far as pedagogy is concerned, a number of changes have been undertaken to improve the quality of teaching. In 2006 efforts were made to narrow down subject matters taught in schools. Similarly, the change of medium of instruction in 2009 was followed by some curriculum adjustments to accommodate the new system. The same year saw other changes being introduced in what was dubbed a “cocktail of reforms” (Lynd 2010, p. 9). This included but was not limited to primary school teacher specialization and curriculum reduction. The former change put a special emphasis on subject teaching rather than classroom teaching while the latter narrowed down the number of subjects at the primary level from five to four (Lynd 2010, p. 10). The latest change has been the introduction of a competency-based curriculum in 2016 and 2017 arguably shifting from a knowledge-based teaching. The new curriculum brought about a change in approaches to teaching the focus being put on learner-centred teaching. Similarly, the assessment protocols were affected by this change of curriculum. Furthermore, there has been a reorganization of subject matters leading to specialization. Basically, the number of subject matters to be taught has been reduced in upper secondary education while the idea of specialization was introduced in TVET education. New subject matters were brought in and a modular system was introduced in TVETs.

As a part of the pedagogical change, the use of ICT as a teaching-enabling facility is as well to be considered. This has been fulfilled via the provision of ICT facilities and the obligation to have a smart classroom at the level of every school. The use of ICT in schools has been expected to improve education quality by fostering students’ creativity and critical thinking (Mukama & Andersson 2008, p. 164). The idea fits in the move of the Rwandan Government’s commitment to put ICT at the centre of the whole economic transformation agenda (chapter 1.1.2). However, the Rwandan Government’s interest in the use of ICT exceeds the technical capacity of the ministry of education and the preparedness of teachers to accommodate that idea (World Bank 2018, p. 7; Eger 2016, p. 37). In addition, some scholars question the relevance of the Government’s idea to invest in a burdensome costly technology-centred curriculum in the context of an agricultural country (Eger 2016, p. 38).

Needless to say, the competency-based curriculum was introduced to address the issue of poor-quality provision in the Rwandan education sys-

tem. Few studies have been carried out thus far and some areas of improvements have already been pinpointed. In a small-scale quantitative study carried out to assess the general trend of the application of competency-based training in TVET, it was revealed that the CBT program has improved the lives of the youth in Rwanda. The latter can access the internal market; however, they are not fully convinced whether the package of knowledge and skills they have acquired are enough to guarantee them supplementary prospects like further studies (Kuboja et al. 2016, p. 15). Similarly, a study was carried out to learn from sector-based trainers (SBTs³) to view the issues in implementing the new curriculum in Rwanda. The findings revealed that teachers appreciate the new competency-based curriculum. However, they found it highly loaded in terms of content to be covered and showed weakness in regard to its understanding (Ndiokubwayo et al. 2019, p. 37). Likewise, a study carried out to investigate teachers' assessment practices in primary and secondary education found a mismatch between teachers' understanding of the competency-based teaching approach and Rwandan approaches to assessment (Ngendahayo & Askill-Williams 2016).

Improved access to education

For all those changes to happen there had been a special focus on access expansion since the early 2000s. To this end, the new constitution established compulsory and fee-free primary education in 2003 (Republic of Rwanda 2015, p. 40). The idea was to remove education fees in Government schools and to make education compulsory with a visible monitoring hand from the side of the Government. Two flagships of these changes are the introduction of the Nine- and Twelve-Years Basic Education systems (9YBE and 12 YBE), which opened wide doors to secondary education access by the idea that students may attend secondary schools in their neighbourhood. The 12YBE policy guaranteed all Rwandan children a fee-free 6-year primary and 6-years secondary education (Lynd 2010, p. 9). At the heart of this system, a special emphasis was put on day schools which came to reverse the age-old practice of boarding secondary schools. A school feeding program was adopted to give additional support

³ SBTs: Sector-based trainers are teachers picked from sector levels, they are trained and after getting the trainings they are supposed to train their fellow teachers around their schools in their respective sectors (Ndiokubwayo et al. 2019, p. 24)

to this idea of day schools. However, some parents and students keep low expectations regarding the quality of education offered in those day schools as the previous practice of taking best performing students to boarding schools remains.

In the framework of changes in access, admission criteria in secondary education were reviewed as well with the adoption of positive discrimination in favour of female students. This move helped the enrolment rate to exponentially skyrocket. The rise in enrolment brought about the problem of hosting capacity and, as a result, efforts have been put to the expansion of schools' infrastructures to enlarge the hosting capacity. In this regard, new schools were constructed, and some old schools expanded. The very new idea in this was to get citizens involved in the construction of schools (Lynd 2010, p. 10). In the framework of hosting capacity, besides the dimension of infrastructures, there was another critical issue of the teaching workforce which needed to be addressed. The rise in students' enrolments would have gone hand in hand with the increase in number of teaching staff, yet this did not materialize proportionally. To mitigate that challenge, a policy of double shift was introduced in the dynamic of the so-called "cocktail of reforms" in 2009 (Lynd 2010, p. 9). Yet, the available evidence revealed that the policy of double shifting was associated with a heavy workload for teachers (World Bank 2018b, p. 38; World Bank 2011, p. 6). Similarly, there is a claim that the policy definitely helped to foster access but it contributed to poor students' performances by limiting the time of instruction as well (World Bank 2018a, p. 8). This situation has a detrimental effect on the whole education system as available evidence shows that a weak foundation in primary education especially in lower primary undermines learning at subsequent levels (World Bank 2018a, p. 6). To enhance the prospects of completion, rules governing the decisions about students' promotion and repetition within education levels were revised as well. The idea got ambivalent reactions from teachers with some of them claiming that it is associated with a sense of lack of students' commitment to learning which results in poor performances from their side.

While the Rwandan education system is praised for its achievements in terms of enrolment (Williams 2018; McLean Hilker 2010), its retention capacity is low as it is compromised by high rates of drop-out cases (World Bank 2019, p. 30). Evidence shows that, by the end of 2016, drop-out cases reported in primary and lower secondary education reached respectively 4.4 % and 6.0 % with variances in different grades. The peak was reported

in P6 during the transition to secondary education where an estimated 20.8 % of children were claimed to drop out of school (Stoalinga et al. 2018, p. 20-21). World Bank (2019, p. 29) reports that only 68 % of first graders eventually complete six years of primary education while 38 per cent manage to complete the full nine years of basic education.

As far as tertiary education is concerned, access has been expanded as well through the emergence of private universities and the expansion of the Government university's hosting capacity. However, some challenges have been documented especially in regard to the provision of the quality of education (Habarurema 2019, p. 44), gender disparity with girls students lagging behind their boys counterparts, especially in the public university (Habarurema 2019, p. 43; Tusiime et al. 2017, p. 7), and low expectations in terms of contribution to the society development (World Bank 2019). Private universities have a big share when it comes to students enrolment; nevertheless, they are claimed to be principally interested in market-oriented courses and concentrate on courses that do not necessitate huge investments in equipment and research facilities (Tusiime et al. 2017, p. 27). Generally, the fields of administration, business and law dominate the enrolment of students in higher education with the proportion of 33.0 %, the field of engineering, manufacturing and construction takes the second position with 16.0 %, and communication and information technologies taking 8.5 % (MINEDUC 2018b, p. 74). The trend does not reflect the ambitions of the Government in terms of the economic development agenda which considers the fields of engineering, manufacturing, sciences and technology as the backbone of the desired development.

Education access through expansion of the basic education has been explored by a number of researchers and results were more or less consistent in terms of a recognition of the success achieved in regard to broadening the access to basic education (Williams 2018 p. 12; McLean Hilker 2010 p. 10). Above all, no empirical evidence of significant inequalities of access whether on class or regional grounds were recorded (McLean Hilker 2010, p. 10). However, some shortcomings which need further focus have been observed as well including the observed access divide by income and urban-rural residence among others (World Bank 2018b, p. 24; World Bank 2011, p. 88).

Teacher training system

As far as teacher training is concerned, the initial training of primary education teachers has been entrusted solely to Government and government-aided teachers training colleges (TTCs). This was not the case in the former period as the teacher training system was a stream in secondary education (Lynd 2010, p. 14); any school could apply for accreditation for training teachers and get it. As for teachers for secondary education, the change was about hiring qualified teachers who have been trained by higher learning institutions and colleges of education. In the same framework, post-graduate programs were introduced to enhance the professionalization of teachers with non-educational initial training. However a well-organized in-service training scheme is missing yet and a lack of critical pedagogical skills from the side of teachers has been reported (Lynd 2010, p. 15).

In sum, there is a general recognition that changes in line with access to education were arguably a success to a certain extent (GPE 2019, p. 56; Williams 2018, p. 12; Kweku & Walker 2018, p. 4), however, the overall system-level efficiency remains poor and deteriorated in secondary education (GPE 2019, p. xiii), and the initiatives in terms of quality improvement did not keep the same pace (Lackamp 2016, p. 112; Williams 2018, p. 6; IPAR Rwanda 2014, p. 48). Rwandan commitment to the provision of education is notable; however, some research evidence showed that youth educational expectations are not met by the quality of education they get (McLean Hilker 2011, p. 274). Similarly, new forms of exclusion along the lines of poor/rich and rural/urban divides have been reportedly introduced amid the wave of efforts to expand education access (Williams 2018, p. 13). From an equity perspective, gender parity was successfully achieved (Psaki et al. 2018, p. 8), but disparities according to geographical location and income remain (World Bank 2018b, p. 24; World Bank 2011, p. 88). Moreover, the fee-free education brought about fierce competition between Government and private fee-paying schools, and it led to the closing of some private schools, especially in rural areas. Yet those failing private schools were allegedly expected to deliver a marginally better quality education (Eger 2016, p. 39).

Basically, the insufficient quality of learning and instruction is one of the most pressing challenges facing the Rwandan education system today (GPE 2019, p. 58). Available data show that there is a big number of students in primary education who struggle to gain age-appropriate basic

skills in literacy and numeracy (World Bank 2019; EDC, 2017; Friedlander & Goldenberg 2016, p. ii) as it was reported that 31 per cent of students tracked in a study did not meet a basic literacy threshold (Friedlander & Goldenberg 2016, p. ii). Another study explained that only 45 per cent of 2nd and 5th grades tested in 2014 met grade-level expectations in Kinyarwanda and in English (World Bank 2019, p. 29). The situation was worse in mathematics where the average score was 33 per cent for 2nd graders and 38 per cent for 5th graders (World Bank 2019, p. 29).

The claim is that changes have affected school structures, but the teaching practice did not change. The poor educational quality was pointed out to be a source of other problems including excessive repetition rate likely to impact negatively the completion rate (IPAR Rwanda 2014, p. 29). The World Bank's 2018 human capital index showed that, by age 18, Rwandan children expect 6.6 years of schooling which, when adjusted to learning translates to 3.8. This shows an alarming learning gap of 2.8 years, and this calls upon a special focus on quality improvement (World Bank 2019, p. xi; World Bank 2018, p. 44). Despite efforts made and all statements expressed by decision-makers about the desire to teach the youth the skills of critical thinking and debate, this did not materialize in practice and the teaching practice remains predominantly teacher-centred in schools with little opportunity for debate and discussion (Namara 2018, p. 114; Lackamp 2016, p. 112; McLean Hilker 2010; p. 16). Teachers continue to think of themselves as transmitters of the knowledge to be memorized by students for examinations (Freedman et al. 2008, p. 681). The worse of it, the discourse on the quality of education in Rwanda does not favour the intended change. Quality teaching is viewed and assessed through the lens of national examinations' results which account for standards to be relied on to determine good schools and good teachers. In light of this, teachers do the "teaching to the test" or even "teaching the test" (Ngendahayo & Williams 2016, p. 157). Yet research has shown that teaching to the test has a detrimental impact on educational quality (Posner 2004, p. 749-751) as it narrows the curriculum by squeezing out some subjects which are not examinable. Similarly, it limits learning because students focus on cognitive dimensions at the expense of other skills areas (NCTE 2014, p. 2; Sharon & Berliner 2005, p. 95-109; Volante 2004, p. 2) and teachers spend a big deal of teaching time to the test practising (Sharon & Berliner 2005; p. 95). Worth noting too is that the Rwandan assessment approaches have been found far from aligning with the basic tenets and assumptions of the competency-based curriculum which

is being implemented in Rwandan education (Ngendahayo & Williams 2016, p. 159).

This list of changes mentioned above is far from being exhaustive. A detailed chronological sequence of educational changes in Rwanda is given in appendices (see appendix 1). In the framework of this study, efforts have been made to group some changes into categories. They happened in a sporadic and scattered manner and affected the system in different ways. Teachers played a leading role in the process of change implementation yet there is a research gap when it comes to their digestion of change. Teachers' change agency is highly dependent on their conceptions of change. Therefore, their beliefs about change, attitudes, readiness and competencies in change should be given serious consideration in a context of a changing education system. The investigation of their perceptions of change is likely to make a difference when it comes to bringing genuine change in the system and taking the latter to new heights.

1.1.2 Education re-engineering amid national transformation reforms

Rwanda is a landlocked, hilly, low-income and small country located in East Africa with a population of 12.2 million in 2017 (The World Bank 2019, p. 3). After the 1994 Genocide perpetrated against the Tutsi, the country embarked on a transformation agenda which aimed to repair the social fabric torn apart by experienced divisions and achieve economic development.

The development from a society with discrimination and elitism to an inclusion

The society of Rwanda suffered from discrimination and bitter division on the grounds of ethnicity and regionalism. There is a claim that this conjuncture is rooted in the legacies of colonialism (Baines 2003). Embedded in that social background, the national education system was characterized by different kinds of unfairness, favouritism and elitism. By way of illustration, in the 1970s entry to all Government and Government-assisted secondary and tertiary education was determined by what was termed "ethnic and regional quotas" to the expenses of academic performances (Williams 2018, p. 3; Eger 2016, p. 30; Rutayisire 2017 cited in MINEDUC 2015, p. 6; Mafeza 2013, p. 4; King 2013, p. 72 - 82). The problematic aspect of this education system was not only on the side of access

but curriculum and pedagogy as well. The system promoted a teaching practice with rote memorization-oriented learning instead of critical thinking development. As a result, it produced graduates, who could not help but adhere to the discrimination, hatred and genocide ideology (Krogull et al. 2014, p. 8).

In view of this scheme of things, the Government of Rwanda has embarked on several transformation projects seeking to distance itself from the past (Williams 2017, p. 550). Some reforms which are highlighted in this work have been undertaken in that framework. For instance, Rwanda's new constitution made primary school fee-free in 2003 and, as of 2008, doors to secondary education were wide open to the Rwandan youth through policies of 9YBE and 12YBE which came in to make both levels of primary and secondary education compulsory and free of charge (Williams 2018, p. 4). These community-based schools operate in parallel with Government boarding schools officially known as schools of excellence. The latter are reserved for top performers from primary and lower secondary schools and they don't fall under the country's fee-free education policy (Williams 2018, p. 4). Therefore, top-performing students get their places in boarding schools when they can afford the cost and the remaining get admitted to community-based day schools in their neighbourhood. Additionally, the formerly unknown construct of inclusive education has been put in the spotlight of public talks, media, as well as schools and special consideration has been given to groups which previously looked marginalized by the system.

The quality of education was not left behind in the framework of the change agenda as it came under examination with policies and programs being directed to teachers' education and students learning (MINEDUC 2015, p. 7). The competency-based curriculum with its associated teaching strategies was found to be a fitting orientation for the national transformation aspirations. In fact, the Rwandan educational sector policy sets ambitious goals and objectives for education. Those include but are not limited to educating self-resilient citizens who are free of all kinds of discrimination, developing in Rwandese citizen autonomy of thoughts, patriotic spirit, a sense of civic pride and global awareness, transforming the Rwandese population into human capital ready to take the national development to the next levels through the acquisition of life-learning skills and the likes (Republic of Rwanda 2019, p. 3). Obviously, a different kind of education was/is expected to respond to that agenda.

Development to the prosperity of Rwanda

By the turn of the millennium, Rwanda was down in all aspects of life. Destruction, poverty and hunger were the main features of the society. Economic indicators were alarming at both micro and macroeconomic levels. For instance, the poverty rate was estimated to be 78 % while the mean years of schooling were 2.3. Other basic indicators like dependency ratio and life expectancy were respectively estimated to be 85.4 and 48.6 (Raga 2022, p. 3)

Since 2008, the government of Rwanda has embarked on a variety of economic and structural reforms likely to turn things around and improve the lives of the citizens. Undertaken in 2000, the 'Rwanda Vision 2020' was a mission statement to reflect society's aspirations and a national determination to construct a united, democratic and inclusive Rwandan identity. The vision aimed to transform the country into a middle-income country in which Rwandans are healthier, educated and generally more prosperous (Republic of Rwanda 2012, p. i). To attain this ambitious goal, mid-term strategies were elaborated in terms of the Economic Development and Poverty Reduction Strategy (EDPRS) I and II. The strategies played a key role in the process of domestication of sustainable development goals in the Rwandan context. EDPRS I aimed a strong achievement in human capital development while promoting three flagships programs: sustainable growth for jobs and exports, 'Vision 2020 Umurenge Program' (VUP)⁴ and good governance (Republic of Rwanda 2007, p. 1). EDPRS II had the overarching goal of "accelerating progress to middle-income status and better quality of life for all Rwandans through sustained average GDP growth of 11.5 % and accelerated reduction of poverty to less than 30 % of the population" (Republic of Rwanda 2013, p. 1).

Based on lessons learnt in previous programs, further agenda was established for the future. The connection between the ending Vision 2020 and the coming Vision 2050 is done through what is termed the 'National Strategy for Transformation' (NST). The current national aspiration is to become an upper-middle-income country by 2035 and higher income by 2050 (World Bank 2019, p. 4; Republic of Rwanda 2017, p. 1; Republic of

⁴ VUP: Vision Umurenge Program is an integrated local development program to accelerate poverty eradication, rural growth and social protection. The VUP comprises: public works, unconditional support for those unable to work and a financial service component that promotes financial literacy and provides credits. (Lavers, 2016; p. 2)

Rwanda n.d., p. vi). Human resource development and a knowledge-based economy are one of the pillars which have been identified as likely to lead to that goal (World Bank 2019, p. 4). In the framework of this long-term plan, the policy of 'Made in Rwanda' was adopted as a roadmap aimed at increasing economic competitiveness by enhancing Rwanda's domestic market (ibid.). As a part of those economic programs, digitalization has gained a special focus in national planning (Republic of Rwanda n.d., p. 4). The digital transformation is expected to play a significant role in efforts to move the economy and society from a subsistence agriculture base to an information technology hub for the region and the continent (Nsengimana 2017, p. 378).

Besides economic aspirations, another important policy on the national agenda as a country emerging from the havoc associated with the 1994 Genocide is the idea of national unity and reconciliation. Education is blamed that it played a role in the whole build-up which culminated in Genocide perpetrated against Tutsi in 1994 (Williams 2018, p. 3; Krogull et al. 2014, p. 8; Mafeza 2013, p. 4). Yet, the current education is relied on to mend the broken tissue of the Rwandan social fabric. Therefore, education is expected to reverse decades of discriminatory policies by opening doors to all students and promoting values of national unity and tolerance (Republic of Rwanda 2019, p. 3). The role of the education sector in the countries' policy was highlighted as "creating the culture of peace emphasizing positive and non-violent national values; and promoting the universal values of justice, peace, tolerance respect for others, solidarity and democracy" (Obura & Bird 2009, p. 8-9) as well as "eliminating negative discrimination and promoting access to higher levels of education using criteria based solely on students performances" (Ibid.) Those policies are seen as important steps to increased social justice and, of course, they served as points of reference for education changes but in the same token they assign a significant task to the education system in the transformation process.

The Government commits to invest in comprehensive human capital development to achieve its economic aspirations to create a knowledge-based and technology-led economy (NURC 2016, p. 655). A comprehensive human resource development is singled out to be one of the requisite pillars to achieve a sought-out status of becoming a middle-income country (Kuboja et al. 2016, p. 11). Education has been and is still expected to play a key role in the whole transformation agenda (NURC 2016, p. 655).

Being a landlocked country with limited natural resources, Rwanda's reliable tool for modernising and economic growth is found in its population (Karareba et al. 2019; Kweku & Walker 2018, p.42) whose youth is the majority. Education was tasked with the delicate work of fairly sharing its benefits to all through a quality and fee-free basic education expected to boost the national economy and repair the national fabric by guaranteeing job opportunities to the youth and unifying a country which was torn apart by divisions. Education is viewed as a last resort to solve the problem of manpower and produce an enlightened society ready to evolve into a middle-class society relying on a knowledge-based economy (NURC 2016, p. 655).

All in all, the Rwandan Government aims to develop the country in the direction of reconciliation, economic growth coupled with technological advancement as well as social cohesion. Not all programs are coherent in themselves, however, all of them count a lot of education being the base in regards to the desired socio-economic transformation. Without losing sight of the achievement thus far attained, there are doubts from previous research that the education system can manage these aspirations of social and economic change, given its under-resourced situation and the expectation focussing every single teacher. While the education system is credited with a host of ostensible improvements (Kuboja et al. 2016, p. 1), there is a growing body of research and reports with different points of view claiming that the system is still far away from achieving the expected results (Lackamp 2016, p. 112; McLean Hilker 2010, p. 17). The approach to change and targets of change need further reflection if ever the system wants to reach genuine change outcomes. By the way, some criticisms have been voiced about the change of being technocratic and focussing on institutional reforms to meet international binding obligations (McLean Hilker 2011).

1.1.3 A changing education system in a self-reflected conservative culture

Developmental expectations of Rwandan society and thus of the educational system are also filtered through a cultural setting that perceives and describes itself as conservative. It is worth noting that Rwanda is one of the few countries in Africa that is characterized by only one autochthonous language and, in this sense, can be characterized as monocultural. The difference between Hutus and Tutsis that led to the genocide was

more an economic and social stratification difference than a cultural one in the strict sense.

The conservative and tradition-oriented nature of Rwandan culture can be observed in people's daily practices and values. Wedding is one of the most important ceremonies which take place in Rwandan culture and bring together a huge number of people. It is a ceremony which is respected by everybody and performed in more or less a similar way across the country regardless of the socio-economic context. Yet in the ceremony, efforts are made to take the attendants back to the former period through the dressing code, speeches and all associated practices. Similarly, when educating young people in the family setting, traditional values are taken as standards for ideal behaviours and practices. A behaviour which is at odds with tradition is blamed and referred to as coming from abroad.

Moreover, central to the process of national reconstruction there is an idea of home-grown solutions which resulted in a variety of social programs that are the backbone of the national economic transformation (Gatwa & Mbonyinkebe 2019; Hasselskog 2017; Ezeanya-Esiobu 2017). The understanding is that "from available studies, indigenous knowledge-based social policies are cost-effective and able to more easily impact grassroots development. This is because citizens are familiar with their foundational elements and basic tenets and are traditionally equipped to innovatively build and improve on such policies with minimal needs for external prodding" (Ezeanya-Esiobu 2017, p. 5). The point is to go back in history and find hints and strategies typically Rwandan which worked out in the former setting to be applied to tackle current challenges. For instance, in the wake of the 1994 Genocide perpetrated against the Tutsi, Rwandan society was confronted with an impossible challenge to hold genocide perpetrators accountable in an effective way. Drawing on the history, Gacaca⁵ courts emerged as a fitting solution to prosecute those who were involved in the atrocities and provide justice to the victims (Buckley-Zistel 2005, p. 115). Similarly, in the framework of strategies to

⁵ Before the colonialism, Gacaca courts were informal community tribunals which helped to solve conflicts. It was the main existing justice system in Rwanda which dealt with disputes, conflicts, offenses or any other incidents happening in the community where justice was needed to be done. They were used, in the aftermath of the Genocide, to prosecute, try and condemn Genocide perpetrators (Buckley-Zistel, 2005)

reduce poverty, the Government of Rwanda drew on the Ubudehe⁶ system which is reportedly a practice that worked successfully in the past. There is evidence of projects which have been conducted in the community in the framework of Ubudehe programs.

Again, traditional norms, behaviours and taboos serve as points of reference when it comes to defining morality and ideal behaviours in society. To show how the Rwandan society is attached to its tradition, the cabinet meeting held in late 2007 decided to revive its traditional citizenship education program known as Itorero⁷ which was virtually dormant since the 1960s. The program was officially launched on the 16th of November 2007 and since 2013 (Nzahabwanayo et al. 2017, p. 227), it is coordinated by National Itorero Commission as per Law N° 41/2013 of 16/06/2013 establishing National Itorero Commission and determining its mission, organization and functioning. The Itorero has many objectives including “to train Rwandans to have respect for values and taboos as a basis for coexistence and national development” (The Republic of Rwanda 2013, p. 35). In the framework of Itorero, categories of people including youth, schools and university graduates, educators, businessmen and women, and specific professionals are taken to camps for a period which can go up to a couple of days or weeks to learn how to become good citizens. The learning mainly focuses on national history, cultural values, patriotism and the like. Furthermore, the overall culture of Rwanda was claimed to not prioritize formal education. Bearing in mind that agriculture and livestock have always been considered to be pillars of the economy, the culture has been praising a good Rwandan not as an educated one, but rather the one who has a good understanding of the land and livestock (Eger 2016, p. 36). Educational change takes place in this cultural context which is likely to play a determining role when it comes to change results.

⁶ Ubudehe is a long-standing Rwandan practices and cultural value of working together to solve problems through a system of mutual assistance which was adopted by the Government in 2000 as a part of the strategies to address poverty reduction (Rutikanga, 2020; p. 62). Currently Ubudehe can be understood as socio-economic stratification system in which poor Rwandans are supported via social protection scheme. As a matter of fact, Rwandans have been classified under four categories the first category designated for poorest people while the fourth category is for the wealthiest members of the society (Bizimungu, 2020)

⁷ Itorero was a traditional education institution founded and totally based on the creativity and social interdependence of Rwandan ancestors. It trained people on Rwandan cultural values with the aim of being good citizens (NURC n.d., p. 64)

These few descriptions above reveal another challenge for the Rwandan education system: it is confronted with conflicting demands. On the one hand, the idea of rapid social change is a reality which is felt and thusly needs to be addressed and taught. On the other hand, the culture is strong and the adherence to peasant cultural norms is proclaimed. These two demands clash in the education system and must be brought into balance there. This is a great challenge for the teaching staff, so far and it needs an appropriate consideration in the change efforts.

1.2 Exploration of the gap for research

Educational change is therefore a rife topic in the Rwandan political arena but the interest is not echoed in scientific discourse. It's a growing field which has not been proportionally searched on for the time being. Of course, a handful of researchers have addressed the topic at a certain level as highlighted above by describing society's demands on the educational system (chapter 1.1.1). Other available empirical data are from change evaluations as mandated by donors. There are other areas which need to be explored for the sake of educational quality improvement. The role of teachers in education and education improvement is unquestionable, yet it should be noted that their contribution to educational change was not addressed in the Rwandan context. Their views have always been absent in the discourse on educational change in the Rwandan educational system. This is a significant gap in research and the Rwandan discourse on education.

Therefore, this study, based on in-depth field research on teachers' experiences with change, is a contribution to the discourse and stands out by its sake to investigate the digestion of change by agents situated at the bottom level of the system hierarchy. The overall aim of this study is to investigate the perceptions of teachers on changes happening in schooling in the framework of the current trend of the changing society.

The purpose behind this study is two-fold: on the one side, it makes an empirical contribution to the discourse on education by understanding how Rwandan teachers perceive change in education. On the other side, it makes a theoretical contribution by understanding the nature of the relationship which exists between teachers' perceptions of change and the success of change.

The results of the study will be of importance for efforts undertaken to improve the educational system as it is argued that the meanings that

people make of their experiences affect the way they carry out that experience (Seidman 2006, p. 10). The research does not claim to be a panacea for all questions one may ask in regard to how teachers relate to the change in education, but it is a starting point where a number of questions will find answers in terms of the perceptions of teachers. Those questions include: who does undertake the change in schooling? How do teachers relate to change in schooling? What role do teachers play in the change process? Where do teachers see the necessity of change? What changes do teachers initiate at the school level? What experiences do teachers have with the changing world? All this questioning has been synthesized in one main research question as stated below (1.3).

The exploratory nature of this study and its particular guiding research questions focussing on qualities of perceptions demand qualitative research. It seeks to use interpretative frameworks to address the meanings individuals ascribe to this idea of change in schooling (Creswell 2013). The reality being investigated-change in schooling- is understood through the eyes of teachers who make up the sample of the research at hand. Data were collected from teachers by the use of individual semi-structured interviews and analysed by the use of the content analysis method. Further details about the methodology used in this research are discussed in chapter three of this thesis.

1.3 Research questions

This research was guided by one main question: What are the perceptions of Rwandan teachers on change in schools amid a changing environment? From this main question, three sub-questions have been developed. The three sub-questions are the following: (1) How do Rwandan teachers perceive the change in schooling? (2) How do Rwandan teachers perceive the changing world? (3) What challenges do Rwandan teachers perceive in change in schooling?

1.4 Organization of the thesis

The thesis is organized in six chapters. Following this introduction, chapter two of this book explores the theoretical framework which underpins the study. In this chapter, the theoretical foundations of educational change are explored as well as the historical development of change in education. Similarly, determinants of educational change are discussed.

Additionally, the impact of the current changing environment on education is presented where ideas of sustainability, uncertainty, and emergent competencies as well as their meaning to educational change are debated. Moreover, a note on educational change in Africa is presented to frame the background of educational change in Rwanda which is discussed as well. Considering the framing of the topic of this research, it proved to be of significance to explore the state of research of teachers with change. This point is addressed in two perspectives: teachers with change and teachers in change. By these reflections, the focus of this study is underlined.

The methodological considerations are discussed in chapter three. Basically, the chapter gives an account to the research process. A special focus is put on the description of the research approach, the elucidation of sampling strategies and the sample as well as the methods of data collection and data analysis. The chapter is organized in a way to provide the reader with details about the nature of decisions made during the research process.

Collected data are displayed in chapter four in the form of a typology of teachers' understanding of change. The chapter presents and describes the ideal types as they emerged out of the raw data. The description is done from the perspectives of the interviewed teachers and segments of their interviews are brought in illustrations.

The fifth chapter deals with the discussion of results. It is an interpretation of findings where the latter are first summarized by reflecting research questions and then discussed in line with the existing discourse on change in education. The discussion ends up with hints to the contribution of this study to the development of a theory of educational change perceived by teachers.

Chapter six provides implications of this research for theory and practice. Implications for the theory are framed as suggestions for further studies. The researcher points to the specific types of studies which he wishes they could take over from where he leaves off. Implications to the practice are presented in the shape of recommendations to different decision-makers, stakeholders and practitioners showing what needs to be improved.

2 Change in Education – a Literature Review

This chapter deals with the review of the literature on change in education. The field of educational change is broad and with this in mind, the literature review focuses on aspects which have direct links with this study. The following discussion addresses ideas of foundations and determinants of educational change (chapter 2.1) as well as reflections on the change in the current changing environment (chapter 2.2). By looking at the context of the study, I found it relevant to offer a glimpse of the background of educational change in Africa, in general (chapter 2.3) and in Rwanda, in particular (chapter 2.4). Similarly, teachers are at the heart of this research since it deals with their perceptions. Henceforth, the literature on how they relate to change is revisited as well (chapter 2.5). The chapter wraps up by highlighting the focus of this study (chapter 2.6).

2.1 Foundations of educational change

Education change is an age-old field which has been searched on since long ago. It draws on a variety of sources and it is influenced by a host of factors. In this sub-chapter, the theoretical foundation of educational change is brought forward by first giving an approach to the systematic aspects of the discourse on educational change (chapter 2.1.1) and further on the development of the discourse in the last fifty years (chapter 2.1.2).

2.1.1 Theoretical foundations of educational changes

Education policy is a terrain which experiences struggles and competition from different groups of interests having different ambitions and visions for society. The policy-making process must take into consideration and is shaped by this struggle between different and sometimes opposing ideological and theoretical blocs (Apple 2004, p. 15). The history of education shows that a variety of theories have fought to shape and influence the educational policy landscape. But they can be brought to two main umbrellas by looking at the comprehension of educational goals: human capital formation and personal autonomy (Geiss 2020, p. 150). In this sub-chapter, I focus on human capital and critical theories of individual autonomy as the main models inspiring educational changes.

The dominance of human capital theory

The human capital theory is an economic theory which assumes that for a society to gain economic benefits and develop, it must invest in people (Lyll 1999, p. 123). It traces back to the 60s (Milošević Radulović & Marković Krstić 2017, p. 30) and it considers education as a source of economic development (Tan 2014, p. 411) with its objective being to train the labour force to achieve labour quality and productivity (Tan 2014, p. 429; Lyll 1999, p. 127). In this regard, reformers recommend that teaching should be linked to the demands of the economy to help students to conform to the demands of the workplace. They advocate for the involvement of employers in educational work by giving assistance and feedback (Lyll 1999, p. 127). Students are conceptualized as soon-to-be workers who are trained to meet the requirements of the work landscape. A big emphasis is put on productivity and skills and knowledge are considered as investments in one's and society's labour productivity (Robeyns 2006, p. 72). It is an investment which has a double purpose: on the one hand, it's crucial for individuals' development, on the other hand, it's a key to the economic development of one's country (Tan 2014, p. 412). That means, that there is the assumption that society invests in human capital to increase economic growth and individual invests in education to increase personal income (Musial 1999, p. 115). The theory considers that capital development is at the centre of educational activities including policy-making and educational delivery. Musial (1999, p. 114) takes this reflection of capital in education as further as to suggest that even when teachers are committed to the development of students' talents, though they may not use the term capital but implicitly their work may consist of increasing the child's academic capital.

The theory has dominated the landscape of educational policy and change in many countries (Tan 2014, p. 429; Lyll 1999, p. 127) and some scholars find its hand in the trend of Neo-Liberalism (Apple 2004). However, it has been targeted by a variety of critics. The major problem with this human capital theory, according to scholars, is its economic-orientedness. It emphasizes economic benefits as the only benefits of education (Robeyns 2006, p. 72). Human beings are treated as objects, commodities or machinery and, worse again, there is a claim that it can lead to the justification of human exploitation (Tan 2014, p. 412). Being considered as objects, human beings must be moulded for the efficient functioning of the industry (Musial 1999, p. 117). This understanding of education and

human beings is sharp in the current changing and technology-driven environment. The point is that individuals need to be moulded and tailored to meet the requirements of the current environment but the latter is not altered to meet the desires of human beings (Musial 1999, p. 117). Robeyns (2006) finds this theory instrumental to the extent that it values education, skills and knowledge only in so far as they contribute to expected economic productivity. The downside of this conceptualization of education lies in the fact that non-economic values of education are not valued and the knowledge that is not economically instrumental has no investment value (Robeyns 2006, p. 73). From the standpoint of Tan (2014), this theory does not necessarily disregard the nonmonetary contributions of education to both individuals and society, even if it acknowledges the social, cultural and aesthetic benefits of education but these are considered to be positive externalities (Tan 2014, p. 413).

Musial (1999, p. 117) finds that, in, this theory educational economic gains outweigh the idea of education being a source of personal enjoyment. Additionally, this theory is blamed for ushering economics into the realm of education leading to what Tan (2014) terms “economic imperialism” or “neoliberal hegemony of economic rationalism” (Tan 2014, p. 428). The author underlines that education is not the only discipline to suffer from this hegemony, rather other disciplines including sociology, laws and political sciences suffered the same fate and this dominance goes to the extent to reshape and redesign other disciplines according to its own needs (Tan 2014, p. 428). Furthermore, this theory has been criticized for creating the illusion that education can solve economic problems yet there are evidences which are in discord with that assumption and the theory does not fully explain those cases (Tan 2014, p. 436). Based on those limitations, a search for another theory makes sense and the critical theory is suggested as an alternative.

Critical theory and individual development as an alternative

The critical theory is suggested as an alternative with prospects to fix gaps and shortcomings associated with the economistic and instrumentalistic nature of human capital theory. It is a sociological approach which focuses on the distribution of power in society and looks at how social structures provide people with latitude to live their own lives (Lyall 1999, p. 124). It emphasizes the centrality of the development of the individual over the society’s prominence and focuses on the promotion of personal liberation,

personal fulfilment, social justice, equality, freedom, human dignity and the like (Baruah 2020, p. 9190; Lyall 1999, p. 125; Zeichner & Gore 1990, p. 5). In contrast to the capital theory, Apple (2004, p. 13) claims that critical theory comes to challenge the new liberal and neo-conservative policies which invaded the field of education. The theory does not disregard the link between the school and the workplace, rather critical theorists see the schools' role as increasing students' awareness of the problems that exist at their future workplaces (Lyall 1999, p. 127). The workplace is conceptualized and students should understand it as a setting which has been created by human beings, therefore changeable by human beings as well (Lyall 1999, p. 127). Critical theory criticizes the capital theory's approach to education which consists of reproducing the social relations which exist already in the society. Critical theorists argue that educational reforms, from capital theory perspectives, carry in themselves a hidden agenda of legitimization and reproduction of the status quo (Espinoza 2010). For them, a central purpose is awakening individuals' ability to criticize what is taken for granted in society (Zeichner & Gore 1990, p. 5). For critical theorists, a vital concern is the social transformation aimed at increasing human value. It has at its core the will to fight against all sources of domination, exploitation and repression which are legitimated by the education policy (Espinoza 2010, p. 102). Reformers who draw on critical theory emphasize a sense of democracy, empowerment of people and a setting of balanced power in society (Lyall 1999, p. 124-125; Zeichner & Gore, 1990). The theory gave rise to critical pedagogy which posits liberation from oppression as its main tenet (Baruah 2020, p. 9190).

Social Change in both perspectives

Both theories, as discussed above, have the potential to inform education policy-making and change. Theorists from both theories see the same facts and problems in the environment but they differ when it comes to their interpretations and suggestions of solutions (Espinoza 2010; Lyall 1999). They consider the work of education as vital in that process, however, they differ when it comes to the definition of the role of education (Lyall 1999). While human capital theorists emphasize the instrumental and economic role of education in social change, their counterparts from critical theory underscore the intrinsic and non-instrumental role of education in social change (Robeyns 2006). The aim of this discussion is not

to suggest what is better than the other, but rather to show the potential of each one to inform the work of educational change.

2.1.2 The development of the discourse on educational change

Change is a common experience in school systems since years ago. Educators have always had to engage with changes in society and the educational system in one way or another over time (Hargreaves et al. 2005, p. viii). Looking at the past for the countries in the global north, Carnoy and Rhoten (2002) suggest that before the 1950s, education change was embedded in new educational theories and philosophies as they were promulgated by thinkers (individual visionaries). Those thinkers came up with new ideas when it comes to new conceptions of knowledge and transmission of knowledge. One may understand that, by that time, education reforms were undertaken to align educational delivery with the new educational theories. Shortly after the launch of Sputnik and the emergence of post-war egalitarian ideals, education has been treated as a reliable factor for technological and economic advancement as well as greater social justice (Hargreaves et al. 2005, p. viii). It is argued that in the 1960s and 1970s, there was a shift, and new perspectives came to challenge the status quo. Educational reforms were situated in economic and social change. It is in this period that approaches based on political economy, world system theories and theories of neo-colonialism started to get their say in shaping education worldwide (Carnoy & Rhoten 2002, p. 1).

In this period of the 1960s and the 1970s, teachers started being inundated with curriculum innovations in mathematics, sciences and humanities and there is a claim that it is in this particular time of educational expansion and optimism that educational change and study about it began (Hargreaves et al. 2005, p. viii). In their periodization of change, Hargreaves and Goodson (2006, p. 29) associate this period of the 1970s with what they call the “age of optimism and innovation”. The authors depict the environment in the global north of that time as conducive to teachers’ innovation and promotion of student-centred learning (p. 30). Later on, waves of changes affected various aspects of education with some being undertaken in a systemic way while others focussing on individual schools as the centre or focal point for the change (Hargreaves 2005, p. viii). In the context where results matter the most, outcomes-based policies became popular in the 1980s followed by standards-based educational

policies in the 1990s. The point is that those reforms shifted the focus of educational policies from educational inputs to educational outcomes or, put in other words, from teaching regulation to learning monitoring (Sahlberg 2004, p. 75).

The movement of large-scale reforms kicked off in the late 1980s and it was inspired by the desire of developed countries to continue leading the way in economic and social transformations which was knocking at the door. For Fullan (2007, p. 4), the movement of the 1980s was the second one as he traces the first wave back to the 1960s and the third in the 1990s. He points to the failures of the first and second large-scale reform movements and entailed large-scale consequences touching well-being, economic prosperity and social cohesion (Fullan 2007, p. 7). Those reforms had a scientific base and they were rolled out to other countries as they were easily espoused by international development organizations as well (Sahlberg 2004, p. 174).

In efforts to analyse the reform movement of the 1980s, Cheng (2020) makes a categorization of those reforms and came up with what he calls “three waves of change” (Cheng 2020, p. 90). The first wave termed the “effective education movement” represents changes aimed at the improvement of internal processes in learning, teaching and governance (*ibid.*, p. 90). The second wave was referred to as the “quality education movement” and it came as a response to the concerns about educational accountability to the public. The satisfaction of stakeholders’ expectations and the marketization of education delivery were at the heart of those reforms which mainly took place in the 1990s (*ibid.*, p. 90). From his perspective, the third wave “the world-class education movement” emerged at the turn of the new century and a strong emphasis was put on future effectiveness. At the core of those reforms of the third wave, there was the idea of educational relevance to the future development of students and society (*ibid.*, p. 91). This typology brings to the fore the assumptions about the environment, the conceptualization of the purpose of education and the nature of teaching and learning associated with every wave of reforms. Consistently, Zajda (2020, p. 295) recognizes that in the period of the 1980s, globalization and marketization had a big hand in reforms which happened mostly in English-speaking countries resulting in structural, ideological and qualitative changes in education and policy.

Another categorization of those changes of the 1960s to the 1990s in the Anglo-American world was suggested by Sahlberg (2004, p. 69) who

came up with a typology of four educational reforms including equity-oriented reforms (typical in the 1960s and the 1970s), restructuring-oriented reforms (emerging in the 1980s), financing-oriented reforms and standardization-oriented (appeared in the 1990s). This typology entails a chronological understanding of educational reforms which is similar to what was suggested by Cheng, as discussed above, especially by looking at the nature and timeline of involved changes. Those reforms attracted the attention of various other researchers; for instance, the period of the 1970s to mid-1990 was depicted by Hargreaves and Goodson (2006) as an age of complexities and contradiction. Teachers who enjoyed a certain extent of autonomy in the previous period found themselves struggling with reforms imperatives like standardized tests and downsized decision-making which brought work overload to teachers while limiting their liberty as well (p. 30). Elsewhere, Sahlberg (2011, p. 176) points out that the focus on quality was the flagship of the Global Education Reform Movement in the 1980s where a certain focus was put on curriculum development, students assessment, teacher development, technology-assisted teaching and learning and proficiencies in basic competencies (reading, mathematical and scientific literacy).

The contemporary patterns of educational change present educators with changes that are multiple, complex and sometimes contradictory. That situation makes teachers and their school principals feel like they are overwhelmed by tasks and work in chaotic conditions. But that complexity has to do with the current information circularity and quick decision-making process (Hargreaves et al. 2005, p. x). This time is shaped by ideas of marketization, standardization, cultural and economic globalization, homogenization, public accountability and the likes (Hargreaves & Goodson 2006; Geo-jaja & Zajda 2005). There is a recognition that those trends shape the current educational reforms as they are promoted by international financial organizations which forced their way into educational policy design (Hargreaves & Goodson 2006, p. 31). Therefore, it is argued that the notions of economic and social changes are affecting education in a significant way (Hargreaves & Goodson 2006, p. 31). Globalization is a force inspiring the organization of education all over the world in different dimensions. For instance, knowledge and information are recognized as major commodities in the knowledge economy (Carnoy & Rhoten 2002, p. 1-2) and this gives a new impetus to the link between education and global economic development. Sahlberg (2004, p. 74-75) claims that the restructuring of education is coming as a response to the economic,

political and cultural globalization process. Education systems are drawing on the business world to organize their governance and operational modes. This gave rise to the neo-liberal and market-fundamentalist educational policies which favour instrumentalist educational value at the expense of its humanistic value (Geo-Jaja & Zajda 2005, p. 126).

2.1.3 Determinants of educational change

Change in education can be undertaken on grounds of manifold factors. Fullan (2007) refers to “countless variables potentially influencing whether a change program is started” (p. 69). He discusses eight sources affecting change initiation in the school system including the existence and quality of innovations, access to innovation, advocacy from central administration, teacher advocacy, external change agent, community change pressure, new policy and problem-solving and bureaucratic orientations. What he highlights here is the multifacetedness of change as the latter can be embedded in one or several sources and initiated for various reasons (Fullan 2007, p. 70).

On a separate note, Carson (2005, p. 2-3) claims that we live in a context where schools are asked to deal with an array of concerns including contradictory ones. He gives an example of schools being required to satisfy demands for rights of inclusion for children with special needs, on the one hand, and to strengthen scores on international test scores to competitiveness and prosperity in a global economy, on the other hand. The political responses to these demands have always been to put pressure on schools in the shape of reforms. Consistently, Fabella (2015) points to the economy and politics as determinants of educational reforms. The author argues that educational reforms come into two main categories: Access and quality reforms. On the one hand, he says, those reforms are outcomes of political policies which involve policymakers and their ideological stances, and, on the other hand, reforms are initiated to respond to various economic factors.

While investigating on three decades of secondary school change in America and Canada, Hargreaves and Goodson (2006) found educational change to be mainly shaped by the convergence of large-scale economic and demographic shifts. They indicated that in schools which were involved in their “Change over the time? project” waves of reforms, such as changing students’ demographics, teachers’ generations, leadership succession and school interrelations defined three distinct periods of change

which affected those schools in a period of three decades. The authors make it clear that those change forces don't work separately, rather they may converge at specific historical moments and this convergence is likely to bring a wave of educational reforms (*ibid.*, p. 31).

As far as the current time is concerned scholars agree on the fact that Globalization is driving educational change across the world with some of them putting a particular emphasis on a specific globalizing aspect. For instance, Geo-Jaja and Zajda (2005, p. 110) highlight the narrative of economic neo-conservatism with its valorised international marketplace as a force organizing societies. The same authors recognize the instrumentalization of education in the current situation of the knowledge- economy coupled with what they term a learning nation (*ibid.*, p. 110). Similarly, Wilson (2005) underscores the ideas of globalization and technological modernization as key determinants of educational change. From his perspective, those trends are associated with a changing workplace which requires education to train the knowledge workers for a knowledge-rich and sophisticated technology-laden environment. He finds it to be an ongoing trend as education will continue to grapple with challenges posed by those forces even in the future (*ibid.*, p. 61).

When talking about determinants of educational change, it is worthy to underline the idea of policy borrowing. In his article entitled "Learning from elsewhere", Philips (2000) identifies four motives behind the idea of policy borrowing in education. Those motives include (1) serious scientific/academic investigation of the situation in the foreign environment; (2) popular conception of the superiority of other approaches to educational questions; (3) politically motivated endeavours to seek reform of provision by identifying clear contrasts with the situation elsewhere and (4) distortion (exaggeration) "whether or not deliberate, of evidence from abroad to highlight perceived deficiencies at home" (*ibid.*, p. 299). The idea of borrowing reforms is already a common practice but it has been strongly criticized by Datnow (2020) in his 20- years of intensive reflection on educational change. He suggested that the success of a reform design which worked in a particular context cannot be taken for granted in another context with different students, staff, communities, and school systems. From his understanding, this raises the issue of social justice as, in such a context, teachers struggle to find their proper ways to make the borrowed reforms models fit the needs of students whom they were not designed for (Datnow 2020, p. 435). By the same token, Harris (2003) sees

the idea of borrowing school reforms as a response to the existing pressure on researchers and policymakers to identify school improvement processes and projects that work. He argues that school improvement projects have always been transported from one context to another only to find that they do not translate properly from one to another. He finds the reason for the experienced failures in the absence of detailed comparative studies of school improvement across different countries (p. 376)

2.2 Educational change in the changing environment: an imperative call

The current changing environment calls for change in various arenas and education is not spared. Since the turn of the millennium, most governments around the world have been working to respond to the changing economic, demographic, political and social imperatives (Darling-Hammond 2012, p. 21). The current period is known to be characterized by rapid job changes, and growth of knowledge (Fraguela & Rosas Colin 2021; Darling-Hammond; Scheunpflug 2011, p. 34; Wilson 2005; p. 49-52) where it is estimated that the amount of knowledge produced from 1999 to 2003, approximately equalled the amount produced in the entire history of the world (Varian & Lyman 2003 cited by Darling-Hammond 2012, p. 22). Globalization of social and economic activities is another significant feature of the current era (Geo-Jaja & Zajda 2005, p. 109). Globalization is recognized for bringing about the end of geography, ushering in new interaction patterns through networks (Datnow et al. 2002). As far as the schooling system is concerned, globalization continues to break down the walls of schooling and usher in more sources of knowledge (Hargreaves 2002, p. 198). Similarly, the existing trends of increased mobility and cosmopolitanism impose new requirements for policies when it comes to the preparation of citizens in the current era (Marginson & Mollis 2001). It is against that backdrop that educational change stands as an imperative call. In the following paragraphs, the necessity of educational change is reflected in line with existing and emerging trends.

2.2.1 Reshaping education for sustainability

Sustainable development is a construct which emerged recently and encompasses the world's commitment to pursue development progress while being mindful of the needs of the next generation. That move aims

to ensure that the development is achieved within the win-win intersection of the economic, social and environmental spheres (Nordén & Avery 2021, p. 24; UNESCO 2012). Education has a significant role to play in this agenda (Concina 2019, p. 1096; Brunold 2006, p. 229). There is a growing body of research which show a strong link between education and the socio-economic development of society (Hanushek & Woessmann 2020; Hanushek 2020; Hanushek & Woessmann 2007; OECD 2001, p. 120). However, as UNESCO MGIEP (2017) underlines “if schools turn out young people uniformly and unthinkingly committed to pursuing a kind of development that destroys the environment and intensifies social divides and inequities we risk hastening our collective destruction” (UNESCO MGIEP 2017, p. 2). There is a consensus that education is both an important instrument in overcoming global environmental problems, on the one hand, and a structure which holds the road towards a greater consciousness of sustainability, on the other hand (Brunold 2006, p. 224). To this end, the United Nations member states committed themselves to the World Decade of Education for Sustainable Development from 2005 to 2014. The decade aimed to encourage governments and other stakeholders to ensure that the idea of sustainability takes root in all areas of the educational system (Nordén & Avery 2021, p. 4; Brunold 2006, p. 224).

Both ideas of sustainable development and learning for sustainability got prominence in the public and scientific debates a couple of decades ago and they were catalysed by the call for action of the 1987 Brundtland report and Rio earth summit of 1992 (Nordén & Avery 2021, p. 1; Brundtland 1987). Since 2014, the world witnessed an increased research interest in the new emerging topic of education for sustainable development (Nordén & Avery 2021, p. 4). One can understand that the rise of interest has been motivated by the adoption of Sustainable Developments Goals (SDGs) by the UN in 2015 where the world’s governments representatives vowed to take action to eradicate poverty, protect the planet and ensure that all people will enjoy peace and prosperity by 2030. Nordén and Avery (2021, p. 21) understand that the idea of global learning for sustainability is an ambitious goal which can be achieved “through coupling knowledge about sustainability challenges with learning to act collectively and contribute to societal transformation”. They see it as a complex approach which is not only about content and competencies but much more about a change of paradigms when it comes to teaching pedagogies. Based on a host of research so far available, they raise against

authoritative pedagogies and transmissive paradigms and favour participatory pedagogies coupled with the active citizenry and socio-constructivist transformative learning which is co-created, socially critical, action-oriented and open (ibid. , p. 21). That learning is expected to enhance specific outcomes for sustainable development which include the knowledge, skills of self-regulation and critical thinking as well as a sense of social responsibility, social participation and cooperation among people (Concina 2019, p. 1096).

Of course, global learning cannot prove to be a panacea to all world problems but it is expected to make a difference by encouraging self-determination in a global context (Nordén & Anderberg 2011, p. 38). Definitely, education for sustainability is a broad idea which calls upon efforts from various fronts. For instance, UNESCO MGIEP (2017) has identified threefold challenges to the efforts to promote peace, sustainable development and global citizenship, which are beyond the reach of the school system. Those include (1) challenges of instrumentality, (2) challenges of nationalism and identities and (3) challenges of regimentation. The work of education is of key significance in that regard but it needs to be understood as a contribution to the whole big agenda which requires a synergy of efforts.

Bearing in mind the idea that the youth will inherit the world from the adult generation, it goes without saying that efforts must be directed towards their awareness about sustainability issues, acquisition of requisite competencies and the change of behaviour with expected outcomes being environmental change. To underline the role of education in the process of sustainability, Brunold (2006) argues that “the natural environment can only seem precious to those who know it and have some direct experience with it” (Brunold 2006, p. 225). It makes sense as a genuine education is expected to help people reflect on the implications of their actions either in the short or long term run and this leads to their responsible decision-making and choices.

All in all, education for sustainability intends to encourage a change of behaviours for the sake of achieving a more sustainable future in terms of environmental integrity, economic viability and a just society for the present and future generations. Knowledgeable citizenry has proved to be a basic requirement for the achievement of that goal. The development of knowledgeable citizenry requires a type of education which focuses on the promotion of competencies of critical thinking and rational decision-making (Brunold 2006, p. 230). This is a reorientation of the entire

education system – a future-oriented education (Fucsko & Sax 2019, p. 1083) which requires large-scale shifts of curriculum priorities, policy and practices (UNESCO MGIEP 2017). It embodies an array of strategies which include critical pedagogies geared to futures and system thinking, participatory and experiential learning, critical thinking, partnership working and values reflection (UNESCO MGIEP 2017, p. 9; Ryan 2011, p. 3). This goes beyond technical adjustments around the edge of the existing system; it rather requires a fundamental rethink of the nature and purpose of schooling itself (UNESCO MGIEP 2017, p. 27). The move calls upon a personal engagement on the side of teachers and school principals towards a cleaner planet. The understanding of that clean planet, what it takes to get there and the requisite competencies to maintain it are of key significance. Therefore, it is advisable to adopt a transformative approach to education (Concina 2019, p. 1101) to achieve that ambitious goal.

2.2.2 Reshaping education for an uncertain future

The current time is depicted as complex, diverse, confusing and chaotic and the future is all the more complex and uncertain. The labour market is becoming uncertain as it is increasingly becoming difficult to predict which new business will emerge and which one will become obsolete in the near future (Yong Zhao 2011, p. 276). Moreover, the knowledge economy with its focus on technology shapes the labour market by dictating skills demand (OECD 2012, p. 35). That status of affair poses a critical problem for education as to how to prepare the youth to engage with this changing world and shape it for the better while preserving basic humanity amid dehumanizing principles and practices (Fink & Stoll 2005, p. 18). Similarly, there is a problem of students' commitment to learning in this uncertain setting. Education completion is not a certain guarantee of a job as it used to be since educated people continue to experience uncertainty in terms of short-time contracts, part-time work and unemployment (Fink & Stoll 2005, p. 34).

By looking at the current trend, Wilson (2005) predicted features of the school of the future. His predictions show that jobs will continue to grow knowledge-intensive, and the demand for knowledge workers will continue to increase. Similarly, he predicted frequent changes in curricula, a focus on mathematics, science, technology, and communication skills in the education of knowledge workers and the transformation of

teachers' role from knowledge imparters to facilitators of students' learning. Moreover, he sees virtual learning substituting the formal learning enacted in the physical class setting (p. 61-62). Others join him in his reflections as they predict the rise of virtual learning (Otara 2012, p. 155; Edwards & Usher 2008). In a context of a changing world, people cannot be satisfied with learning fixed content and facts likely to change overnight. Rather, in the very situation where knowledge is expanding at an exponential pace, they will need to learn how to learn in a self-directed way; with life-long learning being a priority for all (Darling-Hammond 2012, p. 22). As Schein (2004) has put it "we basically do not know what the world of tomorrow will really be like except that it will be different, more complex, more fast-paced and more culturally diverse" (p. 393). People will respond to this status of affairs by becoming perpetual learners. This requires a re-evaluation of education provision. Similarly, the trend shows that the workforce, in future, will need a spectrum of skills and knowledge to deal with technology and globalization of knowledge, on the one hand, and flexibility to adapt to frequent social and economic changes, on the other hand (Draxler & Hernes 2002, p. 6).

The uncertain future appeals to a change of the status quo in education. As Otara (2012, p. 153) puts it, the future of human existence depends on the advancement of education. The future is likely to place more demands on review of how people are educated and what they get from education. To this end, Global education is offered as a fitting paradigm among others as it aims "to support learners' development in terms of acquiring adequate competencies for life in a world society, preparing for uncertain future and acquiring competencies to deal with complexities and uncertainties" (Scheunpflug & Asbrand 2016, p. 35). Elsewhere, it is argued that education does not present only the hope, rather it presents the frustration as well. That frustration comes from "the persistence and dominance of the old educational paradigm" (Zhao 2015, p. 122). Therefore, the uncertain future which lies ahead requires a different education. Change is a necessity, and it will continue to be.

2.2.3 Repurposing education for emerging skills and competencies

Changing education is an ambitious initiative which is expected to align education with the requirements of the current era. The current school system is criticised for being outdated (Darling-Hammond 2012, p. 21-22; OECD 2001, p. 124; NACCCE 1999, p. 27). It is blamed to lag behind the

current reality (Napier 2014) as it was designed a century ago for a society freshly moved from agrarian economies to urban manufacturing economies (Darling-Hammond 2012, p. 23). There is a claim that the educational system was tailored to the requirements of the industrial age. The manufacturing industry working pattern was echoed in the school system which sought to select students and appoint them to different tracks likely to end up in distinctive kinds of work (Darling-Hammond 2012, p. 23; Wilson 2005, p. 52; Draxler & Hernes 2002, p. 3). The point is that the kind of work organization gave rise to a specific kind of educational system which equipped students with basic skills requisite to perform routine work while a few of them were helped to acquire higher-order competencies (Darling-Hammond 2012, p. 23). Consequently, the pedagogy of the 20th century was dominated by a rigid transmission curriculum and transmissive teaching strategies which assumed entailed rote memorization as a strategy of learning (Darling-Hammond 2012, p. 28). In between, society has changed and the youth have been affected as emphasized by Prensky (2001) when he said: “Our students have changed radically. Today’s students are no longer the people our educational system was designed to teach” (Prensky 2001, p.1). There is a wide recognition that the school system is currently challenged in all its dimensions (Brunold 2006, p. 226; Wilson 2005, p. 50).

To survive and live up to the requirements of the challenging daily life, people need new sets of competencies and skills which cannot be imparted by the old setting of the school system. During many decades of the last century, education has emphasized the memory process over the rational process (Fraguela & Rosas Colin 2021, p. 3). There is a claim that the current challenging world requires things to turn another way around; a different kind of learning and different forms of knowledge are needed (Mishra & Mehta 2017, p. 6; Darling-Hammond 2012, p. 29). What someone knows is essential but what they can do matters the most; therefore, competency development needs to be a driving force of the educational system (OECD 2012, p. 36; Wilson 2005, p. 50). The following words of Buckingham and Deakin Crick (2016, p. 2) are eloquent in that respect: “The acquisition of subject matter knowledge is no longer enough for survival and success in a society characterized by massive data flows, an environment in constant flux, and unprecedented levels of uncertainty. What is needed, in addition, is the ability to identify and nurture a personal portfolio of competencies that enable personal and collective re-

sponses to complex challenges". This entails an individual responsible engagement; it is a personal endeavour. By the same token, technology has become a part of daily life and it comes with its demands in terms of competencies and literacies (Kereluik et al. 2013; OECD 2012). Competency development is understood as the acquisition and optimal application of knowledge, skills and attitudes (Fraguela & Rosas Colin 2021, p. 4). Simply put, "a competent person or society applies with skills and accurate attitude essential disciplinary concepts of human knowledge to face challenges that life poses optimally" (Fraguela & Rosas Colin 2021, p. 4).

Educational scholars agree on the need to develop what they term "21st-century competencies" which include problem-solving, critical thinking, creativity, collaboration, communication, entrepreneurship, and global competency (Zhao & Watterston 2021; UNESCO MGIEP 2017; Fink & Stoll 2005, p. 23). Referring to the complexities associated with the current global world, Scheunpflug (2011) takes this reflection further and makes a constellation of competencies requisite not only to live in a global setting but also to build global peace, social justice and sustainability. She differentiates competencies of (1) dealing with knowledge and lack of knowledge, (2) dealing with uncertainty, (3) working in national and transnational networks, (4) understanding diverse cultures and religions, language and intercultural communication (Scheunpflug 2011 p. 34-35). To achieve that ambitious mission (of competencies development), there is a need to move away from a curriculum which focuses on recall and recognition towards the production and application of knowledge (Darling-Hammond 2012, p. 29) as well as the reflection on one's and available knowledge. However, there is a concern whether the school system has the potential to embark on that change agenda. For instance, Prensky (2001) raises an open question of the capacity of current teachers - referred to as "digital immigrants"- to impart those competencies to the current students - referred to as "digital natives" (ibid., p. 2-3). By their generational belonging, they are different in terms of their interests, worldviews and expectations of education. In all ways, educating the youth becomes an ambitious and challenging journey worth to be taken as it is risky to not take it.

Additionally, the idea of global society as it is experienced today appeals to a reconceptualization of education as well. Humanity has already moved away from physical to virtual vicinity and belonging. That new setting challenges the current educational system as people cannot learn things which can be experienced by the senses only; rather they need to

learn what Scheunpflug (2021) terms as “abstract social relations in abstract social space” requisite for existence and coexistence in a global context (Scheunpflug 2021, p. 5). The point is that people need to be sensitive to the problems facing their counterparts who live in remote spaces and contribute to their solutions. The author goes on to suggest that the understanding and mastery of complexities associated with world social structures require a higher level of abstraction and this must be considered in the whole scheme of global competencies (*ibid.*, p. 10).

Furthermore, the nature of work today requires workers to develop another competency of learning to learn. It is estimated that individuals are likely to have three or more occupations and/or careers during their lifetime (Wilson 2005, p. 51). Assuming that any new occupation/work requires a different set of knowledge, workers need to have that capacity to renew their knowledge themselves. They don't need to go back to learn how to handle new responsibilities rather they must do it on the ground. The responsibility of the school is to work proactively and help people develop that capacity of lifelong learning; being able to learn and apply new knowledge whenever the situation requires it. It is against this backdrop that there is a common agreement in the discourse on the necessity of change in schooling (Fink & Stoll 2005; Hargreaves 2005). However, further reflections regarding what and how to change are still needed since the experience shows that most school reforms have just been recycling old ideas (Fink & Stoll, 2005, p. 24). The argumentation above shows that efforts have been made, to a certain extent, but the point is that the pace of changing world with entailed complexities and challenges calls for ongoing research work.

2.3 The discourse on change in schooling in Sub-Saharan Africa

While the preceding reflections on education and change stem from the context of Anglo-American discourse in the global North, there has been little reflection that is specific to the situation in sub-Saharan Africa. The available literature shows that educational change in that region is a complex issue owing to the heterogeneous nature of the political and socio-economic nature of the sub-continent coupled with external influences which continue to shape the trajectory of its development (Chisholm & Leyendecker 2008, p. 195). Inspired by the Millennium development goal of achieving universal primary education by 2015, many countries in Af-

rica committed to free and universal primary education. The main strategy enacted was the abolition of school fees (Hoogeveen & Rossi 2019, p. 2). Those efforts translated into a spectacular rise in the rates of enrolment. However, later on, it was proved that it is not only the quantity dimension of schooling, measured by the years of schooling and enrolment rates but more importantly the quality of schooling evidenced by students' achievements that contributes to social change and the economic growth (Hoogeveen & Rossi 2019, p. 2).

There is a split of opinions when people talk about the quality of education in Africa especially in the aftermath of the 1960s, the time when most African countries got their independence. Some people claim that the quality has been declining while others refute that assertion and say that simply people have become better at assessing quality (Dembélé & Lefoka 2007, p. 535). However, something is unquestionable amid that debate: the sub-continent continues to experience low learning achievement (Majgaard & Mingat 2012) and its education is thought to be poor and lagging behind the rest of the world (Otara 2012, p. 152). There is a limited penetration of the latest technologies in the continent, a poor base of science and technology and a mismatch was observed between knowledge and skills acquired by graduates from schools and those needed by industries or for self-employment (*ibid.*, p. 152). An important share of responsibility for that failure rests on the side of teaching. By the way, the kind of teaching found in the majority of Sub-Saharan African countries is generally reported to be traditional, generally described as rigid, chalk-and-talk, teacher-centred dominated and lecture-driven (Dembélé & Lefoka 2007, p. 535).

The advent of multiparty elections in the early and mid-1990s ushered in a new market orientation and demands for greater levels of accountability of development aids in education. As a result, this paved the way for educational and curriculum reforms with democratic education being a target through the implementation of learner-centred approaches to teaching (Chisholm & Leyendecker 2008, p. 195-196). Besides democratic ambitions and requirements of international aid agencies, other drivers which accounted for African educational reshaping in the 1990s were the idea of globalization and the spread of new pedagogies ideas from the USA and Europe which penetrated the continent (*ibid.*, p. 198). Learner-centred education and outcomes-based education were flagships of reform ideas which spread across sub-Saharan Africa in the late twentieth

and early twenty-first centuries (ibid., p. 197). Additionally, the instrumental economism which has been dictating educational orientation across the world did not spare the African continent. Geo-Jaja and Zajda (2005, p. 118-119) see ideas of a shift in education management, reduction of government educational expenditures and marketization of educational programs being results of that new trend. However, evidence shows that those practices did not materialize in teaching as intended (Chisholm & Leyendecker 2008, p. 198). The main reasons accounting for that failure are thought to be a poor understanding of concepts and intended changes and the inconsistency between ideals of new instructional methodologies and culturally established classroom practices. Consequently, instead of enhancing quality, those ideas undermined learning in some contexts like South Africa (Chisholm & Leyendecker 2008, p. 201-202). Despite an appealing demand for a review of education provision and having in mind the idea that education is a force to rely on for continental development, educational change in Africa continues to be marked by an ostensible gap between policy and practices. The discussion above reveals a crucial aspect when it comes to educational change in Africa: the change is not necessarily something internally coveted and independently carried out; rather the change can be borrowed or imposed.

2.4 Educational change in Rwanda

The introductory chapter already traced the central changes in Rwandan society and in the education system (see chap. 1.1.1 and 1.1.2). In the following, these will be taken up again and placed in a broader historical context against the backdrop of the theories of change already presented.

Rwandan formal educational system was, like in other African countries, inherited from colonialism. That education system was largely geared to prepare a handful of elite individuals to be employed in the framework of colonial government. The first schools were established by catholic missionaries and later supplemented by the protestants with their education having the aim of converting Rwandans like other Africans to Christianity (Rust 2005, p. 245-246; O'Brien 2005, p. 283). After the acquisition of independency, Rwanda like other former colonies did not manage to get rid of the colonial education system, rather efforts to organize the education provision were just copied from former colonial powers. This sub-chapter presents a glimpse of the background of the Rwandan education system by tracing its historicity and historical development

A note on the Rwandan education system

In Rwanda, formal schooling started at the beginning of the 20th century (Barwell et al., 2007, p. 59; Walker-Keleher 2006, p. 37; Mathisen 2012) when Christian missionaries started establishing churches and schools across the country. German colonizers did not leave a significant legacy on education as their tenure was not long enough; they quickly left after World War I (Walker-Keleher 2006, p. 37). Belgians took over from Germans, they shaped the education provision and their influence was still felt even later after the acquisition of independence. Both German and Belgian colonizers left many aspects of the educational organization to missionaries in the sense that on the eve of the independence, almost all schools were owned by Catholic and Protestant churches (Walker-Keleher 2006). The educational system was related to the power of colonizers and less to the individual development of people. This lack of humanistic orientation of education has been the hallmark of the education organization and whether changes have improved the trend is still an open question to be debated. The half-century of colonialism left its imprint on Rwandan educational institutions.

The education system in Rwanda is associated with elements of frustration and hope. On the one hand, it is blamed for having contributed to the build-up which led to the 1994 Genocide (Hayman 2005, p. 10); on the other hand, education was considered to be a force to rely on for national reconstruction and is now expected to play a big role in the socio-economic transformation agenda of the society. It is against this backdrop that in recent years; the Rwandan education system has been going through a number of reforms in a bid to respond to the needs of the country (chapter 1.1). In the aftermath of the 1994 genocide, the Government of Rwanda aimed, first, at transforming the education sector into a tool for peace, unity and reconciliation. Secondly, education was viewed as a tool likely to help develop sufficient and competent human resources for the social and economic development of the country. Later on, the Government of Rwanda understood that the investment in education would help to alleviate and eradicate poverty (Hayman 2005). To achieve this, a host of changes have been initiated as discussed in the introductory chapter. In the following paragraphs, the idea of educational change is put into a historical background by highlighting the political dimension of its drivers.

Periodization of education change

Rwandan history is divided into four main periods namely the pre-colonial period, the colonial period, the post-independence period and the period after the 1994 genocide against Tutsi (Moshman 2015; Sellström et al. 1996). Regarding education, each period had/has its educational ambitions and related changes. In this perspective, Walker-Keheler (2006, p.37) claims that education has always been instrumentalized serving those administering it namely the colonizers, the Church and the indigenous groups in power.

The pre-colonial period extends from between the 11th and 15th centuries (according to some historians) up to the late 19th century when the first colonizers arrived (Sellström et al. 1996, p. 22). The purpose of pre-colonial education in Africa has been conceptualized as being of a two-fold aim: on the one hand to preserve the culture and heritage of the family, clan and society and, on the other hand, to connect new members of that society to that historical culture to prepare them to face the challenges of the life (Mazonde 2001, p. 2). The elders were responsible for teaching the children moral and social values through stories, dances and other means of a fitting life in society (Puttanna & Dusaidi 2017, p. 177). The literature does not give an account of any educational change during that period as formal education was not yet existing.

The colonial period extends from 1899 (Sellström et al. 1996, p. 27) up to the 1960s (Moshman 2015, p. 2). The colonizers brought formal education which was mainly defined by its focus on elitism (Moshman 2015; Hayman 2005). With this new education system, Rwanda witnessed a shift in terms of the purpose of instruction. Like elsewhere in Africa schools were meant to serve the colonial master's aims instead of meeting the local needs (Walker-Keleher 2006; O'Brien 2005). Parallel to colonial education, missionary education was conceptualized as a tool to be used for the conversion of the masses (Walker-Keleher 2006, p. 37). As the conversion requires acceptance, missionary schools were designed to promote skills required to accept rather than a level of education that promotes critical thinking and creativity (Mathisen 2012, p. 54-55; Walker-Keleher 2006, p. 37; O'Brien 2005, p. 483). During this particular period, the education system experienced some minor changes, especially in relation to teachers' qualifications, teaching materials and inspections (Walker-Keleher 2006, p. 38). Other changes came in the shape of the introduction of French as a medium of instruction in 1917 (Mathisen 2012,

p. 77) and the use of other languages in schools in 1948 (Rosendal 2010, p. 127).

The post-independent period encompasses the years from 1962 up to 1994. Some aspects of colonial education went on (Walker-Keleher 2006, p. 38). Those include limited access to education, elitism and westernization of curricula (Mathisen 2012, p. 20). The 1962 Constitution declared that primary education should be free and obligatory, a national university was established in 1963 and some reforms were undertaken affecting especially the curriculum and post-primary education (Walker-Keleher 2006, p. 38). In 1975, an idea of reform emerged in response to the call from the World Bank for the democratization of the Rwandan educational system and concern about increasing rural unemployed youth (Mathisen 2012, p. 21; Walker-Keleher 2006, p. 39; Hayman 2005, p. 9). This is considered as one of the most important reforms that the Rwandan educational system experienced. The bottom line of this reform was democratization, vocationalization and ruralization of education and it was enacted in 1979 (Hayman 2005, p. 9; Obura 2003, p. 39). Besides, the reform addressed other aspects including the class organization where the aim was to stop the double shift to maximize the learning time, the shift of the instruction medium where the mother tongue replaced French in primary and a special focus on local culture (Walker-Keleher 2006, p. 39; Hayman 2005, p. 9; Hoben 1989). This reform had an important impact, especially in regard to educational access, but it did not significantly address the aspect of teaching practice (Mathisen 2012, p. 22), equity, and social justice (Walker-Keleher 2006, p. 39). Teacher-dominated classroom characterized by passive students sitting in rows, taking notes with low participation in the learning process was still a norm (Lynd 2010, p. 14). The structure introduced by this reform was changed in the early 1990s when the educational system returned to the structure of 6 years in primary schools from the 8 years primary education format which was in force since 1979 (Walker-Keleher 2006, p. 39; Obura 2003, p. 39). Actually, the reform efforts initiated in the 1970s were being reworked in the 1990s at the outbreak of the Genocide against the Tutsi in 1994 (Obura 2003).

The post-genocide period starts in 1994 and expands up to now. Education is conceptualized as a key to Rwandan reconstruction efforts (Moshman 2015). Education must produce critical thinkers who can lift the country from poverty and prevent another free fall from ignorance to mass slaughter (Mathisen 2012, p. 5). During this period, the Rwandan educational system has witnessed several changes some of them taking

place at an amazing pace (Mathisen 2012, p. 7). Enrolment quotas based on tribes were removed (Moshman 2015, p. 3; Walker-Keleher 2006, p. 40) and this increased access to education; similarly curricula that emphasized ethnic stereotypes were banned (Mathisen 2012). English was introduced as a teaching subject in 1996 in what was termed a “tri-language policy” (Walker-Keleher 2006, p. 46; McLean Hilker 2011, p. 11) and later English became the language of instruction in 2009. In 1998, the Ministry of education (MINEDUC) released a new curriculum to be used in primary and secondary schools in the fields of mathematics and science. However, it was criticized, once again, for its focus on the content to be taught while little attention was paid to instructional practices (Barwell et al. 2007, p. 66).

Change in pedagogy was identified as an urgent need in 2010 when MINEDUC education strategic plan called for a workforce of critical thinkers. Improving teaching and learning practices was considered to be the core theme of this strategic plan (MINEDUC 2010, p. 5). The Ministry of education made a clear commitment to the improvement of quality teaching. To achieve this, more recently, a competency-based curriculum was introduced in 2016 and 2017 respectively in general education and TVET (Ndihokubwayo & Habiyaemye 2018, p. 39). All those reforms have changed some aspects of the educational system including the education structure, curricula, and enrollment, but they did not really affect the very purpose of educational reforms namely students’ learning with teacher-centeredness continuing to be a dominant teaching practice in schools (McLean Hilker 2011, p. 16; Freedman et al. 2008; Walker-Keleher 2006, p. 47-48). Those efforts made to enhance the education provision are embedded in the capital theory. Education is seen as a tool which is used to alleviate poverty and boost the country to its socioeconomic development as highlighted in its transformation agenda.

2.5 Teachers and educational change

The discussion above underlines the theoretical framework and contextual foundations which inform the change design. The implementation level is another area which needs due consideration. Regardless of the nature of the change happening in schooling, the role of teachers cannot be overlooked. On the one hand, they are in a position to initiate changes but, on the other hand, they implement externally initiated and mandated changes. In both cases, their perceptions, attitudes, self-understanding in

change as well as their sense of agency are of significant importance. The sub-chapter addresses the ideas of how teachers relate to change (2.5.1) and what they do in the change (2.5.2) by respectively focussing on their responses and agency in the change as highlighted in the discourse.

2.5.1 Teachers with change

The topic of teachers' relation with changes in education has always attracted interest from researchers. Research in this regard mainly focuses on understanding teachers' roles, attitudes, beliefs, and emotions in a situation of educational change. Teachers construct representations of what happens in their environment. Those representations serve as lenses through which they perceive, interpret and evaluate what goes on in their settings (Luttenberg et al. 2013, p. 291). In a school setting, teachers are likely to experience twofold main changes. On the one hand, they are inundated with Government-mandated top-down changes and, on the other hand, they embark on self-initiated changes. The research has shown that teachers have different ways to relate to either change. Hargreaves (2004, p.296) explored teachers' emotional responses to educational change and came up with eye-catching results. Basically, he found out that mandated changes are associated with emotionally negative effects on the teachers as the latter tend to feel frustration, annoyance, anger, fear and experience hate and disappointment towards decision-makers who impose policies on them. By the same token, his findings revealed teachers' positive emotions - experienced in the shape of pride, satisfaction and excitement- expressed regarding the self-initiated changes (Hargreaves 2004, p. 299).

The topic of teachers' emotions in change has been broadly explored by research and there is a common understanding among researchers that teachers respond to mandated change with negative emotions (Clement 2014; Kelchtermans 2005; Hargreaves 2004). However, while not ignoring intense emotions associated with imposed change initiatives, Kelchtermans (2005) cautions not to look at teachers' emotions through the lenses of change only. He claims that teachers' emotions need to be understood in relation to the setting of the structural conditions of the teaching job. In that regard, he underlines the share of teachers' self-understanding in their actions including dealing with change, and the whole professional context. As far as Guskey (2002) is concerned, he argues that any change brings a certain amount of anxiety and can be very threatening (p. 286). Consistently, another study has shown that a substantive change

in teaching practice threatens teachers' beliefs in their self-efficacy (Ross et al. 2002, p. 19). The emotional dimension of educational change is a key element to take into consideration while conceptualizing change approaches.

Another aspect which attracted researchers' interest when it comes to change in schooling is the idea of change acceptance on the side of teachers. Evidences abound in regards to how some teachers' demographic aspects like age and gender as well as their professional backgrounds contribute to the shaping of their change acceptance. For instance, research shows that experienced teachers encounter difficulties in adapting to change especially the one affecting the curriculum (Elmas et al. 2014). They are believed to have mastered the content of their teaching, they need school to be stable, rational and predictable, thusly they wish for job stability and changing things is not an option they are willing to consider (Gregory et al., 2002). As a matter of fact, they delay to commit to new instructional approaches or innovation until they taste convincing results on the side of students (Guskey 2002, p. 384) and they tend to stick with their former practices (Elmas et al. 2014, p. 25). On the contrary, the research by Zuber and Altrichter (2018) revealed that teachers' self-efficacy and positive affectivity proved to be important for building openness to the reform and thusly their cooperation in the process of change. This means that teachers who have high levels of occupational satisfaction and those who consider themselves able to master difficult situations build an openness to reforms (Zuber & Altrichter 2018, p. 195-196). Additionally, Gregory and his colleagues (2002, p. 3) posit that teachers' level of acceptance of mandated innovation might be affected by four specific factors. Those include the number of years the staff members have worked together with their principal, the years of experience of the staff members involved in the change process, whether teachers have tenure and the nature of participation in the decision-making process. Nevertheless, a different study undertaken to explore teachers' readiness to change and their perceptions of innovation reached opposite results. Readiness for innovation was found to be significantly different according to gender while no significant difference was reported in terms of duration of employment in the institution, years of experience in the profession and degree of education (Karsantik 2021).

As far as the beliefs of teachers on change are concerned, a study was undertaken to explore them, but through metaphors, came up with mixed

results. The findings showed that teachers see change as unnecessary actions associated with the intensification of work on their side and little or no change. They attributed negative metaphors to educational reforms (Bas 2021, p. 30). That research underlines the importance of considering teachers' beliefs during change. A change project which ignores this aspect of teachers' beliefs is doomed to failure since the latter shape the direction and orientation of educational reforms and determine teachers' actions (ibid., p. 32). It was revealed that teachers are most likely to take approaches and actions which are congruent with their beliefs (Walland & Darlington 2021, p. 89).

Still, with regards to this topic of change acceptance on the side of teachers, special attention was paid to the teachers' relation with mandated changes and some findings are worth to be considered. A series of imposed changes are believed to create a culture of compliance among teachers (Datnow et al. 2002, p. 71). In this context, teachers implement change for the sake of compliance and lack a sense of ownership of the change. Similarly, a striking result was reached by the research in terms of teachers' attitudes in the context of frequent mandated changes. Teachers are concerned about the sense of compulsion they feel, they blame a lack of enough time to make meaning of the changes and their transitory nature (Clement 2014, p. 41).

Parallel to the notion of change acceptance, the idea of resistance to change among teachers is another topic which attracted interest from researchers. Resistance to change is understood as a phenomenon which can delay or slow down the course of change on the one hand or any conduct that thrives to keep the status quo and avoid change, on the other hand (Del Val & Fuentes 2003, p. 148-149). It is a multidimensional attitude which comprises cognitive, emotional and behavioural components (Piderit 2000, p. 785). Efforts to manage and mitigate resistance to change must take into consideration all those three aspects. Resistance to change is a part of human experiences with novelty as it is a normal response to the shift from one situation to another. It has always been seen from a negative perspective as an obstacle to change but the literature shows the possibility to perceive resistance to change as a natural and normal phenomenon that can be beneficial to the organization (Park & Jeong 2013; van den Heuvel & Schalk 2009, p. 290; Del Val & Fuentes 2003, p. 149; Piderit 2000). When it is well managed, resistance to change is likely to attract the attention of the change initiators to the aspects which have not been adequately considered at the beginning. Yet it is recognized to be

the major factor which leads to failure of the school reforms (Zimmerman 2006; Datnow et al. 2002, p. 88).

By exploring the organizational change literature, Zimmerman (2006) puts forward a number of aspects which are thought to drive the resistance to change on the side of the teachers. Those aspects include failure to recognize the need for change, comfort in habit, results of past experiences with change – previously unsuccessfully efforts -, insecurity associated with the fear of the unknown, perceived threats to their expertise and proven abilities, threats to their power and social relationships (Zimmermann 2006, p. 239-240). Moreover, the resistance to change is determined by specific characteristics of the teachers like gender, teaching experience and instructional subjects. In this regard, female and younger teachers are reported to be more favourable to change, more experienced teachers show a higher level of resistance to change and the teachers of vocational subjects were found to have a higher level of resistance to change than their counterparts in academic subjects (Park & Jeong 2013, p. 47-48). However, this research failed to go as deep as to figure out the reasons behind those differentiations in the relations of teachers with the change.

The manifestation of resistance can take different shapes including implicit and explicit ones. For instance, a study by Berkovich (2011) describes fourfold rhetoric and images used by teachers to secure public support for their resistance to reform undertaken in education. Those resisting forms include the media front (use of media), hearts and minds (use of emotional appeals to persuade the public), champions of education (teachers portraying themselves as the only ones caring for learning), fools and villains (dramatic labelling of policymakers) and the distance between “ivory tower” and the “trenches” (policymakers displayed as detached from the reality of school system). This research underlines the centrality of the media in general and the internet in specific in teachers’ efforts to resist the change (Berkovich 2011, p. 573). In a nutshell, teachers’ attitudes and beliefs matter in the process of change in schooling because they shape their acceptance of change which, in turn, is an unquestionable foundation for the success of the change. Actually, the research makes it clear that teachers’ decisions are guided by their perceptions of the value and the purpose of the change as well as their perceived change agency (Walland & Darlington 2021, p. 90).

It goes without saying that the issue of teachers' resistance to change needs to get due consideration in the process of educational change management (Park & Jeong 2013, p. 36). Of course, there are other important aspects which, as proven by research, warrant significant credits to ensure the success of the change. One of them being in connection with teachers' change acceptance and resistance is the idea of the prevailing school culture. Getting knowledge about the potential barriers which are likely to hinder change and being able to manage teachers' resistance to change is one thing. However, it is not enough to guarantee teachers' change readiness. To this end, Zimmerman (2006, p. 241) suggests that there is a need to consider the existing leadership style in school as well (Zimmerman, 2006). Principals' leadership style plays a significant role in shaping the culture in schools. For instance, the research shows that teachers need a particular kind of leadership to help them in the time of change (Carlyon & Branson 2018; Pyhältö et al. 2012). The leadership that develops the school as a collaborative and active learning environment for the teachers in regard to the improvement of their schools is believed to boost teachers' readiness to change (Heijden et al. 2018, p. 352; Carlyon & Branson 2018, p. 116; Pyhältö et al. 2012, p. 112; Datnow et al. 2002, p. 73-76). With this in mind, the research describes the characteristics of school leadership required to promote and lead change in the school context. Those characteristics are defined as relational, trusting, supportive and communicative. Those characteristics are interdependent and co-creative. As a matter of fact, the physical and emotional presence of school principals pave the way for mutual trust and honest communication to develop and, basing on that trust, teachers dare to take risks without the fear of being judged and blamed (Carlyon & Branson 2018, p. 117).

Instructional leadership style has always been considered as conducive to change readiness; however, Fullan (2002, p. 17) challenges this belief. Without ignoring all credits associated with this style when it comes to learning promotion, he sees it as not having the potential of a calibre to ensure a deeper learning. From his perspective, this learning requires mobilizing the energy and capacities of the teachers and, in turn, this mobilization requires the improvement of teachers' working conditions and morale. Thusly, he sees the idea of instructional leadership as too narrow to carry the weight of the kinds of reforms which will create the school that we need for the future. It is against this backdrop that other leadership styles were suggested as fitting alternatives and those include the transformational and inquiry leadership (Park & Jeong 2013, p. 47). In any

case, instructional, transformational and inquiry leadership styles have, in their nature, what it takes to develop a school. For instance, transformational leadership is recognized to be important for teachers to take on their change agents' role since it focuses on building both teachers' and team's capacity for change and has the potential to stimulate the change through a bottom-up approach (Heijden et al. 2018, p. 351). However, what matters the most is the leader's capacity to empower teachers in order to enhance their readiness to initiate the changes on their own and adapt top-down mandated changes to the needs of their students. Sticking with a particular leadership style will not avail much. Rather as Mulford (2006, p. 56) puts it, for the concern of learning improvement, there is a need to not only check the potentials of different leadership styles but to consider a more complex set of relationships between them and a variety of other variables. This discussion highlights the multidimensional view of experiences of educational change by teachers. Change is associated with a multiplicity of feelings, emotions and reflections which need consideration in the process of change management.

2.5.2 Teachers in the change

Teachers have always been central to the research on educational change. They are considered by both policymakers and researchers to be the centrepiece of educational change (Datnow et al. 2002, p. 71). Researchers have addressed the topic of teachers in change from different angles like their motivation to change, their acceptance of change, their beliefs and attitudes about change as well as their change agency. The previous discussion has addressed some of those points (chapter 2.5.1). At this level, the focus is rather shifted to the sense of teachers' agency in change.

Teachers play a pivotal role in education in general and in change, in particular. Unequivocally, they play an important role in the change process (Datnow 2020; Heijden et al. 2018; Datnow et al. 2002). Basically, the promotion of teachers' empowerment, reliance on teachers' wisdom and collaborative professionalism proved to be important factors in the success of reform projects (Datnow 2020, p. 438; Harris 2003, p. 379-380). There is a growing body of literature on teachers' role in educational change. For instance, Datnow (2020, p. 435) sees teachers' role as greater than being active agents in reforms since their actions influence and spark actions and interactions not only at the school level but at the other decision-making layers as well. Again the idea of teachers' role in change has

been explored by Lukacs and Galluzzo (2014) and they document two models which have dominated the literature in this regard. The first model considers the teacher as a recipient and implementer of externally mandated change initiatives while the second assigns to them the role of leader of prescribed reform efforts. Bearing in mind the dynamics of the current time and basing on the premise that change is now the only constant the authors find those models not currently fitting. They propose a third model; the one in which teachers become primary agents of school change (Lukas & Galluzzo 2014, p. 2).

As far as teachers' self-perception is concerned, evidence shows that they reflect on and they are aware of their role in the change. For example, a study by Levinson et al. (2013) makes a differentiation of three categories of teachers when it comes to their perceived role in the change process. Some teachers feel like they are agents (when they assume active responsibility for innovation in their classrooms), others partners (collaborators in the reform) while others consider themselves like recipients of plans formulated by government officials without their input (Levinson et al. 2013, p. 20). Teachers keep displaying their desire to play an active role in the change, however, they are not always explicit when it comes to the definition of what they understand by being active in that regard. It is worth noting that, in the framework of top-down mandated reforms, teachers do not understand themselves to be the ones who determine the level of their involvement in the process. Rather, from their understanding, it is the responsibility of change designers to define the extent to which teachers participate in the policy formation process (Levinson et al. 2013, p. 20). There is a claim that even when teachers get opportunities to collaborate and provide inputs to the change efforts, few of them will recognize the evidence of their participation (*ibid.*, p. 21). All things considered, there is a claim that teachers interpret the change as an ongoing process to attend to the academic and emotional needs of students and they desire to take part in it.

The idea of teachers acting as change agents has been documented by research. Lukacs and Galluzzo (2014) present some basic characteristics common to teachers who work as change agents. Those teachers can read the school environment, they enable the participation of their colleagues in generating solutions, they possess the skills to address the problem they identify in their schools and they feel a sense of ownership with regard to those problems. Basically, they stand out by their contextual, col-

laborative and problem-solving expertise as well as the desire and commitment to reach beyond the classrooms to improve the school (ibid., p. 6-9). Elsewhere, a number of factors have been identified as basic foundations for teachers to take on their change agent role. Those include teachers' open personality and supportive school context (Heijden et al. 2018, p. 365). The school context is recognized to have the potential to make teachers develop into change agents through the organization of a professional learning community (Heijden et al. 2018, p. 368; Watson 2014; Harris 2003, p. 378). The literature on school improvement shows that a constant interchange of professional information at both formal and informal levels plays a significant role in the process (Harris 2003, p. 378). The role of leadership is the key in this process as it sets the requisite foundation for the community to work by providing the basis for vision building, participative decision-making and a sense of team working (Heijden et al. 2018, p. 368). The idea of considering the school setting as the foundation for a sustainable change in education continues to get credits. Actually, there is a growing recognition of the need to locate educational improvement efforts closer to the classroom (Harris 2003). To achieve this, there is a need to support schools in building internal capacity for change and the role of active professional learning communities in this regard is unequivocal.

In sum, from the perspectives of this discussion, educational changes are likely to impact learning when teachers are fully taken on board. This means that the change works when teachers are empowered enough to initiate the change and to adjust top-down mandated changes to the needs of their respective students. Literally, this makes sense as teachers are closest to the problem of students' learning (Lukacs & Galluzo 2014, p. 6). They are in a position to scan the learning process, reflect on potential challenges and take appropriate actions. The working environment of a school, as shaped by the leadership, is key in this process. It offers opportunities for teachers to organize in professional learning communities which pave the way for their collaboration, mutual learning, and development of new ideas about their teaching practices.

2.6 Summary: The focus of this study

This chapter of the review of literature gives a theoretical framework for my study. It shows that the field of educational change has always at-

tracted interest from researchers. It is a broad field which has been investigated from different angles but yet it still has a lot to be explored. The review brings to the fore two aspects which make it all the more attractive to the research. On the one hand, the idea of quick social change makes the current organization of education look obsolete and the need to change it becomes an urgent necessity. On the other hand, the available theories and data come from the context of developed societies. Yet, they inspire and shape journeys of educational change in both developed and developing countries, especially in the current time where the ideas of policy migration and policy borrowing are rampant. The field of educational change offers plenty of research possibilities in Sub-Saharan Africa in general and in Rwanda in particular given a variety of conflicting forces competing in it; yet it looks like a *terra incognita* so far. Even by looking at the few existing data, one notices a gap when it comes to the room given to teachers by the research.

The literature review shows a variety of aspects which have been dominating features of the change for a long. The capital theory continues to force its hand in the change process, especially in the era where neoliberalism and the free market are dominant forces driving the change. However, its economic-orientedness and instrumentality have been targeted by critics from educational scholars. The intrinsic role of education needs to get its place in the change landscape as well. But there is a recognition that the aspect of drivers of change is getting broader over time given the trends currently shaping social change. Ideas of globalization, uncertain future, sustainable development, growth of knowledge, speedy technological development and requisite 21st-century competencies and skills call for a review of educational provision across the world.

Education reforms have many forms but by looking at their nature, the literature brought them into two main categories: access and quality. By the way, a clear-cut differentiation is observed in terms of sources of change both in developed and developing countries. While the change is informed by a strong research base and bears a proactive nature, in some respects, in developed countries, it takes a different shape in developing countries, in general, and in Sub-Saharan Africa, in particular. In this region, change mostly bears a reactive nature which means it happens in response to an existing pressure or as a recommendation from donors. Ideas of external influence, political manipulation of education, lack of

scientific base, poor resourcing of education and the change and inconsistencies between ideals and instructional methodologies account for failures recorded in change initiatives in the sub-continent.

As far as teachers are concerned, this literature considers the central role they can play in the change. Of course, teachers can initiate change in schools and have the potential to be active change agents. However, they continue to be inundated by top-down mandated changes and this raises in them a variety of reactions, attitudes, emotions and feelings which are not conducive to the change's success. Those include but are not limited to the ideas of frustration, annoyance, fear and experience of disappointment all of this leading to a sense of resistance to change. However, the nature and source of change are not the only factors responsible for those responses to change, rather they need to be understood in relation to the setting of structural conditions of the teaching job as well. For instance, the type of leadership at the macro and micro levels of the educational system is responsible for whether teachers feel satisfied or unsatisfied with change and ready to engage with it. It is worth noting that all these aspects brought forward in this chapter offer a strong basis for the analysis of data of this research. They frame the deductive coding which is discussed later in the chapter of Methodology (chapter 3.5.1)

3 Methodology and Methods

The chapter at hand describes the whole journey of my research project. Methodological considerations are discussed as well as the methods and technics which were used to collect and analyse data. As the chapter unfolds, the research approach used is discussed by focusing on its understanding, the rationale behind the choice and the philosophical stance underpinning the process of decision-making (chapter 3.1). The data-collecting methods and strategies are highlighted in the second step (chapter 3.2). In this regard, the type of interviews, their design as well as the strategies for access to the field are explained. Then the sampling strategies and the sample are described in the third step (3.3) and in the fourth step, the processing of data is clarified (chapter 3.4). Here the focus is on the treatment and filtering of raw data till they are in a position to be analysed for the sake of the purpose of this study. Of course, the analysis method is spelt out in the fifth position (chapter 3.5) and research quality and ethical considerations are elucidated in the sixth place (chapter 3.6). In this chapter, a detailed account of the research process is presented in a transparent way by highlighting choices made along the way and the reasons behind them.

3.1 Methodology: a qualitative approach

The starting point of this research is a question: “How do teachers in Rwanda perceive the change in schooling?” The overall intention of this research is to investigate how Rwandan teachers perceive the change in schools in the framework of a changing world and a changing society. Embedded in the qualitative approach, my research focuses on the narration of teachers’ direct experiences with the change. The whole process consists of teachers recounting their experiences with the change, describing what they said and explaining what it means for them. This means that teachers ascribe meanings to the phenomenon of change in schooling as they experience and understand it and, in an inductive process, the researcher makes interpretations of those meanings (Creswell 2014). The emergent nature of qualitative data makes it look fitting for this exploratory study (Cropley 2015).

The study is rooted in the constructivist research paradigm. The paradigm’s ontology assumes that there is no single reality; rather realities are multiple. This ontological perspective requires an epistemology which

assumes that the reality is not there to be discovered; rather it is individually and socially constructed (Kivunja et al. 2017, p. 36; Cropley 2015, p. 11; Mason 2002, p. 67). The point is that knowledge lies in the minds of individuals who construct meanings based on their previous experiences. This means that what the individual person regards as reality is just a model constructed by that particular person based on his/her personal experiences (Moser & Korstjens 2017, p. 271). In this perspective, the research involves an attempt to understand how individuals construct their knowledge about change in education. Constructivism claims that there are plenty of interpretations of reality and, thusly the task of research is to understand how particular individuals construct reality within their particular natural context (Moser & Korstjens 2017, p. 271). Therefore, efforts were made to understand the viewpoints of teachers regarding how they conceptualize the phenomenon of educational change. This area of educational change looks un-researched in the context of Rwanda yet it is rich. Henceforth, this research serves as a starting point for further deeper explorations. It is against this backdrop that the qualitative paradigm was chosen as an appropriate approach for this research.

The qualitative approach stands out by a number of features as highlighted by Flick (2007, p. 2) in the following: “Qualitative research uses texts as empirical materials (instead of numbers), starts from the notion of the social construction of realities under study, is interested in the perspectives of the participants, in everyday practices and everyday knowledge referring to the issue under study”. Specifically, it attempts to deepen our understanding of how things and phenomena came to be the way they are in the social environment (Moser & Korstjens 2017, p. 271; Cropley 2015, p. 38-39; Spencer et al. 2003, p. 3). Qualitative research is claimed to help the exploration of a wide array of dimensions of the social world meaning that it has an unrivalled capacity to help people understand how things work in a particular context (Mason 2002). The overall goal of qualitative research consists of describing and analysing the aspects of the world as they are experienced, interpreted and understood by people on a daily basis (Cropley 2015, p. 39). From a qualitative standpoint, knowledge is obtained using the eyes of someone else (Jonk & Pennink 2010, p. 80). The point is that the researcher needs to rely on his/her respondents’ conceptualization of the world to shed light on the topic under investigation (Cropley 2015, p. 41; Hammarberg et al. 2016, p. 499). On that account, in the framework of this study, teachers’ experiences collected from their settings are likely to elucidate the idea of their

perceptions of change in schooling and their understanding of the changing world and how the two phenomena relate to each other.

From an ontological and epistemological point of view, I embarked on this research with the belief that realities are multiple and socially constructed by interviewed persons rather than being straightforwardly excavated (Kivunja & Kuyini 2017, p. 34; Mason 2002, p. 69). This means that teachers construct the realities individually and then socially through interactions among colleagues. Again, in its essence, qualitative research is used to answer questions about experiences, meanings, perspectives and perceptions most often from the standpoint of the participants (Hammarberg et al. 2016, p. 499). From this perspective, qualitative research is an appropriate and fitting approach to this study.

Bearing in mind the main purpose of this study which consists of investigating the perceptions of teachers on change, considering the open nature of the research questions and basing on all those theoretical considerations discussed above qualitative approach was chosen to inform this study. The specific nature of its ontology, epistemology and methodology help to understand how teachers perceive the changing world and the changes happening in schooling and, therefore, bring answers to my research questions. The research is interested in the quality and richness of participants' subjective viewpoints (Basit 2003, p. 151-152). The idea is to ascertain how teachers perceive change, why they perceive it like that; and the qualitative approach is in a position to help in that respect. Additionally, the choice is justified by the claim that the qualitative approach is best used if a concept or a phenomenon needs to be explored or understood in a setting where little research has been done on it (Creswell 2014). Once again, this comes to support the choice made as the topic under investigation has not been addressed in the context of the Rwandan education system. Now the fieldwork is discussed in the following section by highlighting the design and conduct of interviews.

3.2 Data collecting method: semi-structured interviews

Teachers' subjective viewpoints on change were collected in the shape of talk data by the use of semi-structured interviews. The choice of the method was based on some considerations including the exploratory nature of the research and its philosophical assumptions as discussed above (chapter 3.1). The process of data collection is highlighted here below by focusing on the understanding of the method and its appropriateness in

this study (chapter 3.2.1), the development of the interview guide (chapter 3.2.2), access to the field (chapter 3.2.3) and the practice of interviews (chapter 3.2.4).

3.2.1 Semi-structured interviews about educational change

Getting access to the phenomenon under investigation is a crucial step in any research (Flick 2009, p. 106). From a variety of available methods, interviews were opted to serve this purpose. Interviews are claimed to be the most common method to collect data in qualitative research (Moser & Korstjens 2017, p. 5; Weinbaum & Onwuegbuzie 2016, p. 249; Cropley 2015, p. 84; Savin-Baden & Major 2013, p. 357).

The choice of the interview as a data collection method was mainly motivated by the purpose of the research, the nature of the research question and the philosophical paradigm which underpins the research at hand (Mason 2002). As it was previously mentioned, this research is embedded in a constructivist research perspective (chapter 3.1) and the latter allows interviews and narratives to be used as data collection methods to get insights about individuals' ideas and experiences (Moser & Korstjens 2017, p. 5; Savin-Baden & Major 2013, p. 64). The ontological stance of this research holds the reality to be multiple, individually interpreted and socially constructed (chapter 3.1). In its essence, qualitative research is concerned with the point of exploring a phenomenon from the perspective of subjects being studied using (un)structured interview methods (Spencer et al. 2003, p. 3). Interviews help to understand the lived experience of other people and the meanings they make of those experiences (Edwards & Holland 2013; Seidman 2006, p. 9). They provided me with the advantage to interact directly with research participants. They offered me the possibility to obtain "rational verbal reports" of teachers' experiences about the change in schooling (Cropley 2015, p. 85) in a conversational way (Yin 2011, p. 134). It is worth noting that both researchers and respondents were involved in cooperation to get a clear understanding of the topic under investigation (Mason 2002, p. 63).

Considering the overall aim of this research which consists of investigating the perceptions of teachers on change in schooling, from a range of existing forms of interviews, semi-structured interviews were chosen as a tool for data gathering (Cropley 2015; Edwards & Holland 2013). In exploratory research like this, they offer the possibility to engage in a gen-

uine dialogue where the researcher has the latitude and flexibility of organization as to how and when questions are put, and probing answers pursuing the line of discussion opened up by the interviewee (Edwards & Holland 2013, p. 29). The choice was motivated by the expectations that interviewed subjects' viewpoints are likely to be expressed in an openly designed interview situation (Cropley 2015, p. 13; Flick 2009, p. 150). The point is that teachers have subjective theories of change and knowledge about change. On the one hand, this knowledge includes some explicit assumptions which they express spontaneously by answering open questions. On the other hand, there are implicit assumptions which emerge thanks to the researcher's used techniques. Semi-structured interviews helped to reach that stock of assumptions. Interviews provided access for researchers to get to the context of teachers' experiences with change and thusly understand the meaning they make of change in schools (Cropley 2015, p. 13; Seidman 2006, p. 10).

The semi-structured interview involves a number of open-ended questions formulated around the aspects of the topic area which the researcher wants to cover. Open-ended questions were formulated to address the topic of teachers' perceptions of change and provided the interviewer and interviewee with opportunities to go deeper into the discussion. In addition, the researcher reacted to the interviewee's comments and reactions with further and deeper questions, following the narrative of the interviewed person. The interviewer relied on an interview guide to ask questions and cover the aspects of the topic under investigation (Savin-Baden & Major 2013). This kind of interview requires the researcher to have a number of competencies and skills like active listening, interpreting what is said, checking whether what is said is related to the topic under investigation, identifying changes in interviewee's behaviours and interpreting them, time management and dealing with distractions (Doody & Noonan 2013, p. 31; Mason 2002, p. 67). Reflections on all those qualities and advantages associated with semi-structured interviews guided decision-making when it comes to the choice of the data collection method.

3.2.2 Interview guide

The interview guide proved to be necessary to guide the course of the interviews (Flick 2009, p. 152). During the interview, the participants are given enough room to express their points of view and to discuss in depth

the theme presented to them. The interview guide is claimed to be a tool in the hands of researchers to help them be aware of their interests during the research (Moser & Korstjens 2017, p. 5). It allows the researcher to be focussed, consistent with research questions and enables him/her to collect experiences on specific topics from all participants. In the framework of this study, the interview guide was linked to research questions and was designed to touch on key aspects like the perceptions of teachers on the changing world, perceptions of teachers on the change in schooling, the link between changing world and changes in education, the role of teachers in the education change as well as perceived change-related challenges. Each of these themes was introduced by an open question and then deepened by further probing theory-driven and confrontational questions (Edwards & Holland 2013, p. 72; Flick 2009, p. 152); the point being to help make interviewees' implicit knowledge more explicit. The interview guide comprises three main parts (see appendix 2). First, it starts with an introduction to immerse the participant in the work and ensure his/her safety. Second, it displays eight questions which make the backbone of it and are linked to the topics in the research questions. Third, it wraps up with a set of background questionnaire likely to help capture the identity and profile of the participants.

From a practical point of view, the interview guide contains open-ended questions which provided the interviewees with the latitude to answer freely. Besides, it includes the scripts of what I had to say as an introduction to the interview, some probing prompts to help interviewees go deeper in their storytelling and the concluding remarks by both engaged sides (Jacob & Furgerson 2012, p. 2). Moreover, the interview guide helped to remind me to explain the idea of informed consent, especially regarding the interview recording and alleviate the concerns of participants about the issue of confidentiality. This exchange of basic information helped to build a relationship of trust between the researcher and interviewee which is a requisite to the smooth flow of the interview. In a nutshell, the interview guide does not only comprise the questions to be presented to participants; rather it includes the procedural level of interviewing as well. The making and use of the interview guide was done cautiously the point being for the researcher to be mindful of his position, keep some distance and give enough room to the respondents to express freely their views. To do this, special attention was put to the reflection on the nature of the questions to ask and the whole atmosphere of the interview setting. It is worth noting that the interview guide was not designed

to be static, rather, by the nature of this research, it was revised along the way based on the analysis done in the process (Moser & Korstjens 2017, p. 5).

A background questionnaire was developed and attached to the interview guide as well to serve the purpose of sampling strategy (see appendix 2). It helped to get a snapshot of the profile of every individual interviewed teacher. Aspects addressed by this questionnaire are manifold as they include the identity of the participants by focussing on their age and gender on the one hand, and, on the other hand, it addresses their professionalism where ideas of qualification, teaching field and experience, in-service training received and teachers' extra responsibilities are captured. Similarly, the background questionnaire helped to get an idea of the participants' workplace setting. Therefore, it brought to the researcher the information about the school ownership status, its location and orientation status as differentiated into categories of general, professional and teacher training education. This questionnaire played a significant role in the process of sampling as it helped to involve a diversity of participants in the sample.

3.2.3 Access strategies to the field

Gaining access to the research participants is crucial in any research project. As my informants are active teachers, the majority of them were interviewed at their workplaces. The nature of the qualitative research may require the use of gatekeepers (Seidman 2006, p. 43) to find interview partners. This has been done in this study as, for some interviews, headmasters played this role. The latter were asked to provide the phone numbers of potential informants within the schools under their jurisdictions. They were not involved in the research process but, in some cases, they helped to introduce the researcher to the informants. In most of the cases, participants were teachers whom the researcher had never had any other experience with before. In this case, the interviews were the opportunities for the very first meeting experience. Getting access to those teachers was not easy and, to some extent, their principals helped in that regard. Their contribution was not in terms of ushering the researcher to participants, rather they helped by setting opportunities for the very first communication between the researcher and participants to arrange the setting of interviews. At this level, clarifications were made about potential candidates and information was made explicit that the participation was founded on

a voluntary basis. Their support was highly appreciated as they contributed by facilitating the access to potential participants. The place of the interview was another determining factor to pass through the headmasters. Most of the interviews were carried out in a school setting; consequently, school principals were more or less involved in the process by granting permission for interviews to take place on the premise of their institutions.

Other participants were reached via their colleagues who were interviewed before. The latter provided requisite contacts of potential interviewees; they were called, consent was negotiated and an appointment was made. Two scenarios were possible; when the meeting was scheduled to take place during the holidays, the interview was carried out at the workplace in a room which was easily accessed by the interviewee. When the appointment was made to meet during work time, there was a possibility to meet at the workplace during the weekend or at any other neutral place agreed upon. To do so, participants were asked to think about their schedule and come up with a fruitful time when they did not have classes. In any case, necessary precautions were taken to minimize the interference with the daily workflow of classes and avoid being disruptive.

The telephone played a pivotal role in the process of getting access to interviewees. After getting informants' phone numbers, the next step was to call them and ask if they were willing to participate in the interview. All called people accepted the invitation and after getting a positive answer to the request, an agreement was made regarding the interview appointment time and venue. Once the appointment was made, a number of WhatsApp chats followed in order to build trust and, in the end, a second call was done to confirm the appointment or change it depending on other crucial occurrences. Some informants were satisfied with the whole interview build-up and proceedings in such a way that they put me in contact with other potential informants. That has been beneficial to the whole process of research as, in some cases, I did more interviews than planned per day.

All in all, the initial contacts for the majority of interviews were done through phone calls because potential participants came from different areas including the remote ones spaced as much as miles apart from the researcher's home place. However, there are a few interviews whose preliminary contacts were done in a physical personal touch. In any case, the very first step consisted of giving a rough context of the interview and negotiating the consent. When the consent was granted, further clarifications were provided to potential participants. The whole process of data

collection was done in three main steps. The first fieldwork took place between late 2018 and early 2019. Within this period eight interviews were carried out and processed before embarking on the second step which occurred in early 2020. Thirteen interviews were separately conducted in the second step of fieldwork and processed later. The last field research took place in late 2020; nine interviews were separately carried out. Most of the interviews were carried out by the researcher himself but he got help from his colleague researchers who conducted some interviews for him, especially at the peak of the Covid-19 shutdown⁸. The colleagues are well informed about the whole research process as they were involved in other own research projects as well.

3.2.4 Interview practice

The conduct of the interview entailed a great deal of planning when it comes to the structure and the flow of it (Mason 2002, p. 67). The planning consisted of organizing requisites and checking the readiness of electronic devices. These preparations were done in line with the number of planned interviews to be conducted in a single day. All interviews were carried out in quiet, safe and non-threatening places (Jacob & Furgerson 2012, p. 7) where the interviewees were expected to feel comfortable without noises and interruptions. To choose the venue and time of the interview, participants' points of view were considered. All in all, the whole physical surrounding of the interview was as neutral and safe as possible to facilitate the process of data collection. The choice of the venue for interviews was always negotiated between two parties and precedence was given to the potential participant in the decision-making. In any case, the venue was chosen based on its likelihood to be convenient to the participants and grant enough privacy. Similarly, negotiations were done in regard to the time of interviews and participants got enough latitude to pick the time at their convenience. This freedom is substantiated by one experience where the researcher got ready for an interview as it was planned, and the interview got pushed back to the next day by the participant due to personal reasons. The researcher had to stay the whole day and spend

⁸ Special gratitude goes to Dr. Christine Nyiramana and Emmanuel Niyibizi who supported the process of data collection by conducting some interviews during the time of global lockdown

the night in the vicinity of the venue because it was far away from his home place.

Before embarking on interviews, privacy was ensured not just for the sake of confidentiality but also to help informants feel comfortable so that they might speak freely (Seidman 2006, p. 70). During the process of the interview, there was a need to consider my position as an interviewer. My task consisted of, on the one hand, creating a safe conducive atmosphere of interview, on the other hand, guiding the interview, by the use of an interview guide, in a way to maintain consistency with the topic of my research (Yin 2011, p. 136). To this end, a number of activities fell under the researcher's responsibilities including opening the interview with politeness formalities, keeping the conversation going, pacing, probing, responding to interviewees, eliciting, listening and wrapping up the interview (Cohen et al. 2007, p. 182). All those activities entailed a process of decision-making as well. For instance, as the interview unfolded, there was always a need to decide as to what question to ask next whether staying on the topic already addressed or taking the interview to another terrain (Mason 2002, p. 73). Efforts were made to make sure that asked questions focussed more on the narration of lived experiences than on other abstract aspects (Mason 2002, p. 68). All things considered, there was a need to use a full armoury of skills and abilities at my disposal to guide the interview and help people reveal their experiences about change (Cropley 2015, p. 96).

The starting point of the interview was the exchange of basic information from both sides of interviewer and respondents to establish rapport and trust (Edwards & Holland 2013; Mason 2002). After this exchange, all interviews were kicked off by a general question likely to take the interviewee in several directions and leave room for various ideas, impressions and concepts to emerge from the talk (Cropley 2015, p. 99; Jacob & Furgerson 2012, p. 4). This general easy question was followed by specific and difficult questions which were expected to touch the core of the topic under investigation. Probes and prompts were used to go deeper into experiences shared and help unexpected data to emerge (Yin 2011, p. 136). In any case, questions were kept short except when interviewees required more clarification about the question. The point was to speak little and listen much. Both the content and the context of the interview were taken into consideration (Edwards & Holland 2013, p. 30; Mason 2002, p. 68). Listening skills played a paramount role in this process and efforts

were made to show the interviewees that all they said captured the researcher's attention. The point was to be able to capture a large amount of information about the topic under study. Listening between the lines proved to be a necessity as within the communication, there is always a need to search for something between the lines that may help to understand participants' motives, intentions and deeper meanings (Yin 2011, p. 26).

As far as the recording is concerned, the interviews were recorded using the voice tracer. The computer was used as a backup plan as well. Of course, the permission to record was negotiated by the interviewer and granted by the interviewee (*ibid.*, p. 171). Being aware of the fact that the voice recorder was not enough to record the whole information provided during the interviews, handwritten notes were made as well to include even the available information which was not spoken by the participants. Before every interview, particular attention was needed to check whether recording equipment was ready; this included checking memories, batteries of computer and voice tracer but pens and notebooks as well.

That being said, the discussion now shifts to the sampling strategies and description of the sample.

3.3 Sampling

Sampling is a key step in the research process. Sampling situations were encountered at different stages of the research process and every stage there was a need to take a decision (Flick 2009, p. 115). As a matter of fact, there was a need to decide in regard to which persons I would interview (Creswell & Poth 2018, p. 213; Flick 2009, p. 115). Considering the theoretical background underpinning qualitative research, the participants were selected based on potential expectations that they could help to illuminate the phenomenon being studied (Crompton 2015, p. 78; Hammarberg et al. 2016, p. 500). As a result, knowledgeable teachers thought to possess relevant information about the change experience in Rwanda were selected to be part of the research sample. The underlying principle was to take on board people who are thought to be in a position to cast light on the particular issue that is being studied (Crompton 2015, p. 78; Yin 2011, p. 88).

Theoretical sampling was used as a sampling strategy in this research (Moser & Korstjens 2017, p. 3; Coyne 1997, p. 628). This strategy stands

out by a back-and-forth movement of the researcher navigating concomitantly in the field and the data. It entails strict decision-making regarding which participant to take and when. The interviewing process was kicked off with purposive sampling and then after the theoretical sampling came in to select participants who can best contribute to further developments of the study (Moser & Korstjens 2017, p. 3; Cohen et al. 2000, p. 103; Coyne 1997, p. 629). Data collection and data analysis were done almost simultaneously in an interactive way (Mason 2002, p. 138; Coyne 1997, p. 629). The whole process was guided by a strategic logic where a group of teachers would be interviewed in line to help to address the research questions of this study (Mason 2002, p. 136).

First of all, I opted to carry out interviews with teachers who were thought to have rich information (Creswell 2012, p. 206) and whom I could have access to easily; the easy access was in terms of availability and distance. In this regard, teaching experience and narrative competence were considered to be key factors. The point was to find teachers who were thought to be in possession of rich experiences in teaching; teachers who were thought to have a clear and differentiated understanding of their situation and who were able to communicate their experiences to the researcher (Cropley 2015, p. 78; Creswell 2012, p. 206). As the interview process unfolded, more criteria were defined regarding the persons to take on board for further interviews. Those criteria took into consideration the question of how relevant the next cases would be for the development of the research. Criteria like age, gender, working experience, status of the school, qualification, and workplace location were expected to serve this purpose. Therefore, the sampling was a process which went on with the research unfolding and the sample case was constructed in the whole process of the research. As a matter of fact, my sample consisted of secondary school teachers from different Rwandan geographical areas and different educational backgrounds. The sampling table which is attached as an appendix (appendix 5) is an abridgement of the sample which gives an account of the characteristics of all participants in a concise way.

Basically, 30 teachers who make the sample of this study were interviewed. They were taken based on a number of criteria including the potentiality to have enough knowledge and experience with the Rwandan education system. Besides this, other considerations were taken into account like the capacity to share their experience, readiness and willingness to get involved in the study.

They come from different academic backgrounds and different locations with the common characteristic being a teacher in secondary education with more or less a university qualification; only one of them does not fulfil this qualification criterion. They were taken from all schools' categories found in Rwanda based on the ownership and financing status including Government, Government-assisted and non-Government schools. Similarly, all secondary educational levels were considered while framing the sample. This means that teachers from lower and upper secondary general education were taken and, of course, their counterparts from the TVET stream and teacher training wing were not left behind. They teach a wide range of subjects including natural sciences, mathematics, humanities, languages and hands-on skills. Both males and females were picked and their age and teaching experience range respectively from 26 years to 55 years old and from 1 year to 28 years. They have participated in a variety of in-service trainings including training on the implementation of the new curriculum, leadership, career guidance, health life skills, English language, ICT literacy and inclusion. The majority of them have more teaching-related extra responsibilities at both school and system levels. For instance, some of them are involved in curriculum development, some are mentors at school or sector levels while others participate in the activities of marking national exams regularly.

To stop data collection is another crucial decision in qualitative research following the theoretical saturation (Hammarberg et al. 2016, p. 500; Flick, 2009, p. 138; Cohen et al. 2007, p. 117). The process of data collection is an ongoing activity which calls upon the researcher's expertise to stop it when they estimate it is the right time to do so. So, the point of saturation was reached when it was judged that no further additional ideas were coming in. It is a point where nothing new was being learnt from interviews rather same information was being reported (Creswell 2012 p. 433; Seidman 2006, p. 55). The understanding of this concept of theoretical saturation is made easy by Flick (2009, p. 138) in his statement: "Sampling and integrating further material is finished when the theoretical saturation of a category or a group of cases has been reached (i.e., nothing new emerges any more)". To this end, there was a need to always be in contact with data and check the coding system to see whether new ideas were being added from interviews. The point of saturation was reached after collecting data from 30 teachers; at that level, the process of interviewing was stopped. At this level, the whole focus was dedicated to the work on data as described in the following chapter.

3.4 Data processing

Further steps related to working with data regard transcribing (3.4.1), memoing (3.4.2) and the use of computer (3.4.3). The following discussion gives a detailed account of those steps.

3.4.1 Interview transcription

The interviews had been recorded and stored on electronic devices. To this end, materials were named, organized in files and meticulously kept following a chronological order of the interviews (Creswell 2012, p. 238). Transcription is an important step in qualitative research which deals with talk data collected by the use of interviews (Weinbaum & Onwuegbuzie 2016, p. 250). To transform the words of the interviewed persons into analysable units, there is a need to translate them into a text format (Creswell 2012, p. 239). Transcribing involves presenting the words we can hear in a written form and it involves a reflective process of interpretation that will facilitate the building of social scientific knowledge (Hammersley 2010, p. 19). In qualitative research, the transcripts of audiotaped interviews constitute the major data source (Moser & Korstjens 2017, p. 7; Hammersley 2010, p. 2). It is a step which needs to be dealt with circumspectly and calls upon the reflexivity from the side of the researcher since the transcript per se represents an interpretation that is constructed by the transcriber (Cohen et al. 2007, p. 367; Lapadat & Lindsay 1999, p. 72).

In the framework of this study, a full transcription was opted for the sake of transparency and allowing the abduction process. Data were transcribed verbatim (Moser & Korstjens 2017, p. 7).

The transcription of most of the interviews has been done by the researcher himself but towards the end, other people were brought in for support. Four persons⁹ were trained in transcription and did ten interviews, which had been controlled by the researcher. The whole process of transcription was made easy by the use of electronic devices for recording, the point being that the reliance upon electronic recordings and transcrip-

⁹ Heartfelt gratitude goes to Nshimyumuremyi Ferdinand and Ndahimana André (teachers at Kirinda Presbyterian Institute) as well as Niyomwungeri Aphrodis and Niyonagize Aimé (respectively students at University of Rwanda and Integrated Polytechnic Regional Centre-Huye) who dedicated their time to do transcription of some interviews

tion is seen as enabling human social interaction to be studied scientifically as data can be preserved, reproduced and used for further analysis and checking (Hammersley 2010, p. 5).

While working on transcription a number of decisions were made including the choice to transcribe all the recordings available instead of being selective (Lapadat & Lindsay 1999, p. 66). Similarly, verbal elements were simultaneously transcribed together with non-verbal components of communication. Efforts were made to try to represent features like intonation, pitch speed of talk, pauses, silence, non-word elements such as back-channel signals, laughs and other expressive sounds by the traditional orthography (Creswell 2012, p. 239; Hammersley 2010, p. 7). The point was that, despite being non-expressive, all those sounds and noises are significant in some ways. To avoid being interpretative while transcribing, what people said was not split, rather they were treated as single continuous utterances. The whole process of transcription was done with great care bearing in mind that any potential error in the course may be harmful to the whole project as it may lead to false inferences (Hammersley 2010). The following excerpts are examples of a transcripts taken from interviews with the teachers:

Murakoze cyane hoho ehhh imiterere yo kwigisha ihinduka uko politike yo kwigisha bayishyizeho yego nk'ubungubu ubu dusigaye twigisha dukoresheje system nshyashya ya CBC hmmm CBC ni uburyo twigishamo ariko noneho tugamije ko umwana avanamo ubushobozi competencies zimufasha kugira icyo yigezaho nta kuvuga ngo ari kwigira akazi runaka yeee ubwo rero uko Leta igenda ishyiraho uburyo bwo kwigisha tugenda duhindura mbega nk'urugero nk'urugero se ntitwigishaga mu gifaransa bakatubwira ngo nimuhindure (araseka) mu cyongereza (Shangani 110-116).

....hmmmm hari gahunda nyinshi zagiye zibaho (4 seconds) ariko wenda hari gahunda yindi yaaaa (3 seconds) gahunda yo kuva muuu hmmmm kwigisha mu gifaransa tujya mu kwigisha mu cyongereza iriya ni gahunda (5 seconds) yagize akamaro icya mbere wenda bitewe n'amateka y'igihugu cyacu wasangaga ururimi rw'icyongereza ruuu (...) rudakoresheba cyane cyangwa se ukabona hari ukuntu abantu barubona nk'aho ari ururimi as isolated kandi ari ururimi rukeneze ku isi yose abongereza nibo bajya bavuga ko ni language of business. Ni ururimi rukoresheba cyane ku isi urumva rero igihugu iyo gifashe decision yo gushifting from one teaching language kikajya mu yindi ni uko hari icyo baba babonye cy'inyungu ntekereza ko nabyo (3 seconds) nabyo hari ikintu byahinduye cyane icya mbere byatumye abanyarwanda bamenya urwo rurimi bararukoresha, birumvikana buriya biba binafunguye n'amaremba ariko cyane cyane na wa mwana uvuka mu burezi aba ari gutegurirwa imbere heza hhhmmmm (Bandama 319-330).

All interviews have been carried out in Kinyarwanda and later translated in English. 29 interviews out of 30 have been translated by the researcher

and one by another person ¹⁰ who is good in both Kinyarwanda and English. The translation was done by highlighting the idea which was voiced in the original text and in the process some non-verbal elements were translated while others were taken as such. It took time and entailed a deep reflection to check the consistency between ideas expressed in texts in both languages. Example of translation:

Kinyarwanda version

...aahhh hari gahunda nyinshi zagiye zibaho (4 seconds) ariko wenda hari gahunda yindi yaaaa (3 seconds) gahunda yo kuva muuu kwigisha mu gifaransa tujya mu kwigisha mu cyongereza iriya ni gahunda (5 seconds) yagize akamaro icya mbere wenda bitewe n'amateka y'igihugu cyacu wasangaga ururimi rw'icyongereza ruuu rudakoresha cyane cyangwa se ukabona hari ukuntu abantu barubona nk'aho ari ururimi as isolated kandi ari ururimi rukenewe ku isi yose abongereza nibo bajya bavuga ko ni language of business ni ururimi rukoresha cyane ku isi urumva rero igihugu icyo gifashe decision yo gushifting from one teaching language kikajya mu yindi ni uko hari icyo baba babonye cy'inyungu ntekereza ko nabyo (3 seconds) nabyo hari ikintu byahinduye cyane icya mbere byatumye abanyarwanda bamenya urwo rurimi bararukoresha, birumvikana buriya biba binafunguye n'amaremba ariko cyane cyane na wa mwana uvuka mu burezi aba ari gutegurirwa imbere heza hhhmmmm" (Bandama 319-330).

English version

"...so a number of changes have been done (4 seconds) I can mention also (3 seconds) the fact of changing the medium of instruction from French to English this was an important change (5 seconds) because basing on our history English was not used in our country English was not given a due credit in our context people looked at English as an isolated language whereas it is a language which is used and needed all over the world as English people say it is a business language it is frequently used all over the world now you see if a country takes decision to shift from one medium of instruction to another it means that they found something beneficial in that regard so I have the feeling that (3 seconds) that shift brought about change firstly Rwandans learnt and managed to speak English and in that way there are other opportunities which were open to Rwandans but in the same way the young people who managed to attend the education system were being prepared for a better future... hhhmmmm" (Bandama 340-354).

Anonymization

In the context of this study, anonymization is understood as a strategy used by the researcher to keep confidential the names and other identifying details of interviewed persons and avoid their traceability throughout the data. It is one of the core principles of research ethics which seeks to

¹⁰ I appreciate the support I got from Nzabonimpaye Boniface (teacher at Kirinda Presbyterian Institute) who did translation of one interview from Kinyarwanda to English

maintain the privacy and confidentiality of the participants of a study (Saunders et al. 2015, p. 2; Vainio 2013, p. 685). It is argued that the idea of anonymization in qualitative research is going back to the assumption that naming is harmful (Moore 2012, p. 333). The commitment to anonymization is motivated by the desire to protect research participants from the danger if ever they had to be identified (Gerrard 2021, p. 2). However, this commitment to protection is confronted with a contrasting assumption of liberty as some participants may wish to be named (Moore 2012, p. 338). Therefore, it is the responsibility of the researcher to decide what to anonymize and what to name but the guiding principle must be their allegiance to the principle of avoiding harm to the research participants.

In the course of data collection and data processing in this study, the researcher took the responsibility to decide which information to anonymize. Guided by open-ended questions, interviews were rather flexible and turned out to take the shape of casual talks. Therefore, a number of elements likely to allow the identification of the participants flew through the communication. Those elements include mainly participants' names, places of residence, the names of the schools where participants came from and other names of places which were mentioned by the interviewees as forms of examples or illustrations. Consequently, two strategies were used to ensure the desired confidentiality and privacy. On the one hand, the names of interviewees were thoroughly anonymized and, on the other hand, other names were omitted as they did not make any contribution to this research. To do the anonymization, participants were named after the main African rivers. A list of names of big African rivers was drawn and names were alphabetically assigned to the interviewees following the chronological order of the interviews. This means that there is a list of names of African rivers ranging from Akagera up to Zambezi and, with this, the name Akagera was assigned to the teacher who was the first to participate in the interview while Zambezi was allotted to the teacher of the very last interview. The names of rivers which were taken had to respond to two main criteria: easy spelling and a variety of countries. It is worth to highlight that there is no other particular association between the river being referred to and the person being interviewed.

3.4.2 Use of memos

Memos have played an important role in the whole process of this research. Memo writing is an ongoing process which kicked off at the earliest analytical step and continued till the latest stages of the work (Creswell & Poth 2018, p. 257). It prompted me to analyse my data and my codes early in the research process. Writing memos throughout the whole process of research kept me involved in the analysis and helped me to gain the abstraction of my data (Charmaz 2006, p 71). While collecting data, the research diary served the purpose especially during and after the interview process. Talking about the importance of the research diary, Flick (2009, p. 298) claims that it helps to document the process of approaching a field and the experiences and problems encountered in the contact with the field or with interviewees. Similarly, some raising facts and matters which are considered to be important for the data interpretation, are incorporated. On the one hand, the research diary helped to record all aspects during the interviews including events, gestures, processes, statements, proceedings and any other special occurrence which is likely to document the interview context. All those details have not been put down on paper during the interview process, but rather during reflection time after the interview. At this time, the course of the interview was recalled, and some striking aspects of the interview environment were recorded. On the other hand, memoing was done when interviews were ready for analysis. This was the point where the researcher kept on reading entire interviews to get immersed in data with the intention being to get a sense of the whole database (Creswell & Poth, 2018, p. 257; Creswell 2012, p. 438-439). To this end, data transcripts were read, reread, scanned and the identified main ideas were written as memos.

While doing the analysis, memos played a key role as well, as they contained summaries of major findings, comments, reflections on particular aspects and emerging themes (Moser & Korstjens 2017, p. 8). In the late stage of working on data, memo writing prompted me to elaborate on processes, assumptions and actions covered by the codes and categories as identified in the coding process (Charmaz 2006, p. 82). By the same token, memos came out as insights about the research at any time and any place (Yin 2011, p. 186). Whenever an idea flowed from the mind, it got noted with available material or device including papers, notebook, computer, and smartphone. All in all, memos provide a record of the researcher's process and analytic progress (Charmaz 2006, p. 94).

3.4.3 Use of software

Considering the amount and complexity of data gathered, the use of the computer and associated qualitative research analysis software proved to be of key significance throughout the whole process of this study. The usefulness of computers in research has been documented and two main utilities stand out: the ability to process large volumes of data at a high speed and the ability to process textual material reliably (Krippendorff 2004, p. 258-259). The computer fulfilled a variety of functions and to do so the use of appropriate software proved to be a necessity. In contrast to laborious, challenging and time-demanding manual work, the qualitative data analysis software helped the researcher to sort, organize and visualize data in an effective and efficient way (Tracy 2013, p. 185; Basit 2003, p. 145).

MAXQDA served this purpose of data analysis (Creswell 2012, p. 243); it was used in structuring, organizing data and displaying findings (Tracy 2013, p. 205). The choice of this specialized software was motivated by a number of factors including the nature of research, the nature of data, activities to be carried out by the software and its special functions (Rädiker & Kuckartz 2020). With MAXQDA, texts can be created, imported and visualized. It offers possibilities to explore texts as well by reading them, working with them. It helps researchers to become familiar with the texts by discovering anomalies and patterns and thusly getting immersed in the process of analysis (Rädiker & Kuckartz 2020, p. 28). Moreover, MAXQDA has the potential to facilitate the coding of the interviews, organize codes in a hierarchal order and visualize them as well as memos (Kuckartz & Rädiker 2019). Again, MAXQDA is conducive to team working as it helped multiple individuals to bring their inputs to the project, particularly during the coding exercise. The whole work with data has been made easy by the use of MAXQDA. The process of working on data culminated in a rigorous and deep analysis as it is detailed in the following discussion.

3. 5 Content analysis

Data analysis is a crucial step in qualitative research, as well and it is meant to reveal the meaning of respondents' statements regarding the topic under investigation (Cropley 2015, p. 106). The data analysis was done hand in hand with other developments namely data collection and

the write-up of findings. This dynamic nature was apparent in that the researcher was engaged in back-forth movements in data (Tracy 2013, p. 195; Cohen et al. 2007, p. 462; Seidman 2006, p. 113). Moreover, it is worth saying that the practice of every interview served as a basis to rely on to frame the next interview. The point is that from the participant narrative, new unexpected ideas emerged and subsequently by attracting the researcher's attention, they helped more or less to orient the next interviews. The process of analysis is described in the following by focussing on two main procedures which were entailed: the coding which depicts the move taken to bring data from their raw nature to the abstract elements ready to be analysed (chapter 3.5.1) and abduction which led to the innovative side of this research through generalization of results (chapter 3.5.2).

3.5.1 Deductive – inductive coding

Content analysis was used as a method of data analysis. Content analysis is understood as a scientific study of the content of qualitative material (Schreier 2012, p. 1; Prasad 2008, p. 1). It addresses the understanding of the meanings, contexts and intentions contained in the message (Schreier 2012; Prasad 2008, p. 2) based on compliance with explicit rule (Prasad 2008, p. 2; Cohen et al. 2007, p. 475). It is performed on different forms of human communication and in the context of my study data are presented in the forms of transcribed interviews as texts (Leedy & Ormrod 2021; Lune & Berg 2017, p. 182; Prasad 2008, p. 3; Krippendorff 2004, p. xiii). Based on the premise that the main aim of content analysis is to systematically describe the meaning of the research material (Leedy & Ormrod 2021, p. 389; Schreier 2012, p. 3; Krippendorff 2004, p. xiii), the work of the researcher consisted of going through data, reading them and getting some insights from the whole available material. The coding process helped to condense data and move from concrete to abstract forms of the data. Categories were generated along the way. Compact categories were generated and clustered to find their relationships in abductive reasoning and ideal types emerged as the main findings of this research. Working with data entailed a back-and-forth movement where the researcher kept moving within collected data to establish connectivity and enlighten further decisions. Deductive–inductive coding played a key role in this process (Creswell 2012, p. 261; Schreier 2012, p. 58). That continuing interaction between the researcher and data implied that most of the

decisions were subject to changes on the back of later stages of analysis (Cropley 2015, p. 109).

Data need to be processed systematically in the process of analysis to illuminate the situation; and coding proved to be of great importance in that regard (Creswell & Poth 2018, p. 251; Basit 2003, p. 144). As Charmaz (2006, p. 43) put it, coding means “naming segments of data with a label that simultaneously categorizes, summarizes and accounts for each piece of data”. There is a wide recognition that coding plays a pivotal role in qualitative research especially when there is a need to organize and make sense of textual data in the analysis process (Creswell & Poth 2018, p. 259; Cohen et al. 2007, p. 480; Basit 2003, p. 143). It generates the bones of the analysis which will be subsequently assembled into a working skeleton (Charmaz 2006, p. 45). According to Saldana (2009, p. 4), coding is simply understood as “the transitional process between data collection and more extensive data analysis”. It is claimed that coding is the first step that enables the researcher to move from concrete statements in the data to make the analytic interpretation, from concrete descriptions to higher conceptual and theoretical insights (Cropley 2015, p. 117; Yin 2011, p. 187; Charmaz 2006, p. 43-71; Basit 2003, p. 143-144). Through coding the researcher defines what is happening in the data and begins to grapple with what it means (Charmaz 2006, p. 46). Coding played two respective key roles: summarizing by eliminating some irrelevant elements and clarifying by restating the text in a way that makes sense to produce unambiguous meaning (Cropley 2015, p. 117). Through active coding, the researcher interacted with data, studied data and began to make sense of the data (Charmaz 2006, p. 46).

The researcher developed a coding system (Moral et al. 2015; Tracy 2013, p. 191) as a table of codes organized in a hierarchical abstraction order which was flexible enough to integrate emergent codes. The development of this coding system was an ongoing process and codes have been developed in two ways. First, a list of codes was developed –deductive coding- from the conceptual framework (Skjott Linneberg & Korsgaard 2019, p.13-14). This means that it was developed following the basic insights from the literature (chapter 2) Second, a number of codes emerged from the data – inductive coding - during the process of data analysis (Linneberg & Korsgaard 2019, p. 14; Kawulich 2004, p. 99). The process helped to open up enough space to integrate all significant perspectives as they came from the participants. Both pre-determined and emerging codes were used in the process of this research. This means the process

kicked off with a number of deductive codes and the coding system got expanded and enriched along the way by the integration of inductive codes through the interaction of the researcher and the database (Creswell & Poth 2018, p. 259).

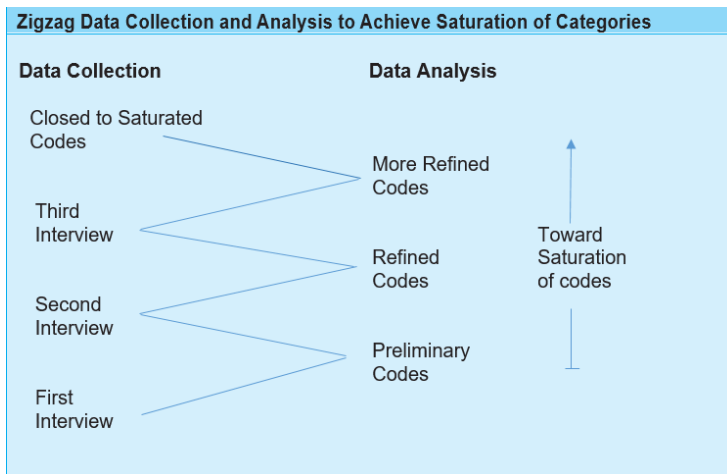
The practice of coding entailed intensive work where the narratives from interviewees were broken out and efforts were made to identify the deductive and inductive codes in the data. The whole process was done in two main ways: on the one hand, in the initial coding, small segments of data were named and, on the other hand, large batches of data were sorted out, synthesized and brought under the same naming in a focussed coding process (Charmaz 2006, p. 46; Tracy 2013, p. 189). Three main sources were used to assign labels to codes. Some code's names came from the theory on change, others are just the researcher's construct while others are in vivo codes (Creswell & Poth 2018, p. 261) coming as such directly from the statements of research participants (Cope 2016). In vivo codes were mainly used in the naming of what teachers see as the change in the educational system; their own words were kept and taken as such in the coding system. Coded data were organized and grouped into categories based on some shared characteristics. The researcher's reasoning combined with tacit and intuitive sense was used in the process of determining the similarities between codes (Lincoln & Guba 1985 cited by Saldana 2009, p. 9). Once the categories were available, the next intensive work set in; it consisted of grouping, comparing and consolidating categories in various ways. This helped the researcher to transcend the reality of the data and move towards the thematic and conceptual end where he showed how different themes systematically interrelated to one another (Saldana 2009, p. 11). All in all, coding was not done in a linear way, rather a back-forth movement was adopted as there was always a need to come back to earlier statements to shed light on the latest ones and vice versa. Moreover, while working on focused coding, there was a need to compare codes to codes and data to data.

At the heart of the coding process, lies the inter-coding which deserves particular consideration as well. Other coders¹¹ were involved in the process to ensure sufficient analytic rigour (Given 2008, p. 445) and to enhance the reliability of the coding (Cope 2016, p. 291) through inter-subjectivity. The process of inter-coding developed in two steps. First, a

¹¹ Special thanks go to Dr. Onja Tiana Raharijaona (Madagascar) and Emmanuel Niyibizi (Rwanda) who supported the process of coding as inter-coders

researcher from a different country was involved from the beginning till the end of the coding process. In the early stages, we both were engaged in independent coding, then after the interview was thoroughly coded by each one we met and discussed the results and made agreement on the suitable codes. This was done for the first eight interviews which came from the first round of fieldwork. When the coding system was thought to be stable, we shifted to another stage where the discussion was not as intense as before. The activity of independent coding stayed but instead of sitting together and discussing, the second coder handed her work to me and I was in charge of checking both of them and in case of noticed inconsistency I got back to her for the sake of agreement. In the third step, a third researcher from a different context as well was involved as well, for a certain number of interviews. With him, the second pattern of working, where the work was handed to me for checking, applied. It is worth noting that both researchers were engaged in other research projects where they needed my support as well and the collaboration was premised on a win-win basis.

Figure 1: Iterative process of data collection and analysis



Adapted from Creswell (2012, p. 433)

The figure gives a snapshot of the process of coding till the saturation of the categories. Of course, every interview was analysed individually. The

figure shows the synthetization of the fieldwork into three main steps with corresponding three main stages of data processing. The figure shows the process which led to the stabilization of the codebook and, thusly, the saturation of codes.

3.5.2 Generalisation through abduction

Abductive reasoning played an important role in the process of data analysis in my efforts to find answers to research questions. Abduction refers to “an inferential creative process of producing new hypotheses and theories based on surprising research evidence” (Timmermans & Tavory 2012, p. 171). It is understood as a logical inference where attempts are made to sort out the facts to get a new idea, explanatory propositions and theoretical elements out of the collected data (Mitchell 2018, p. 105; Mills et al. 2010, p. 1). Basically, it is a relevant strategy to be relied on in efforts to produce something new or generate a hypothesis from little details (Åsvoll 2013, p. 3; Timmermans & Tavory 2012, p. 167; Mills et al. 2010, p. 1). Discovery and surprise are the main achievements of abduction as an intellectual process with the end-point of it being the generation of a hypothesis (Reichertz 2004, p. 304-309; Fischer 2001, p. 7).

Abduction was relied on to explain the discovery dimension of this research. New ideas surfaced in the process of creative inferencing and double-checking inferences with extensive empirical data (Timmermans & Tavory 2012, p. 169). This was made possible by the interaction with data through the iterative back-and-forth movement. The whole research material including interviews, memos, portraits, coding system, coded segments, were visited, revisited and pushed against research questions in order to grasp the full meaning they carried. By the same token, interaction with other researchers in the interpretation group was key to this particular step. The preliminary ideas generated out of the data were shared with like-minded researchers for comments. A mixture of comments came out in the form of encouragements, challenging questions, inputs and criticisms. Those comments helped me to go deeper in reflections and fine-tune generated ideas.

Important for the validation of the generalization of data was the contribution of the interpretation group¹² as a communicative validation of the interpretation of data. The group comprises researchers with different educational and professional backgrounds, embedded in different educational research projects and coming from different countries (Rwanda, Cameroon, Democratic Republic of Congo, Madagascar and Germany). The members of the interpretation group were familiar with my data as they were engaged with them since the start of the project. This familiarity with the work coupled with their expertise allowed them to provide a significant contribution to the interpretation of the results of this study. They contributed by sharing their insights and suggesting ideas which boosted and pushed further my reflections till we reached together the point (stability of results) where results were transformed into findings.

The abduction process led to the emergence of seven aspects which crosscut data. Those aspects include the aim and purpose of change, aspects of the educational system affected by the change, perceived aspects of change management, teachers' positions in schools as perceived across the change, teachers in regard to both change in schooling and changing environment and challenges. Again a reflection of the whole material in line with those emergent aspects triggered the generation of ideas which I referred to as types of teachers' understanding of change. Therefore a typology of teachers' perceptions of change emerged as a discovery from data on a basis of the intellectual process (Skjott Linneberg & Korsgaard 2019, p. 19 Reichertz 2004, p. 304). This typology stands as the main finding of this research. Generated types are ideals (Kuckartz, 1991), they are not meant to be real, but rather mental constructs which help to shed light on the perceptions of teachers on change (Marcelino 2015; Psathas 2005).

¹² Special thanks go to Dr. Onja Tiana Raharijaona (Madagascar), Emmanuel Niyibizi (Rwanda), Fredrick Njobati (Cameroon), Claude Ernest Njoya (Cameroon), Etienne Uwajiyabo (Rwanda), Prof. Dr. Semerita Kavira Kamundu (DRC), Dr. Christine Nyiramana (Rwanda), Dr. Jean Kasereka Lutswamba (DRC), Eraste Bulaya Kakule Jumapili (DRC). All of them being members of my PhD Learning Community provided a big support to the work of interpretation of results of this study. Of key importance is the contribution from Prof. Dr. Dr. h.c. Annette Scheunpflug (Germany) who supervised the whole PhD project.

3.6 Research quality assurance and ethical considerations

This research was done systematically and in compliance with existing rules and standards. A number of considerations were taken into account for the sake of quality assurance:

- In essence, there was a need to check the consistency between research questions and research methods. Research findings represent plausible information stemming from the original narratives of participants and are genuine interpretations of participants' original views in regard to the phenomenon under study (Korstjens & Moser 2018, p. 121).

- Rigour in research methods application was a norm along the way (Creswell & Poth 2018, p. 349). The researcher kept consistency with the research's philosophical paradigm and complied with the rigour of the methodology involved. The methodology chapter provides the reader with clarification and thrives to display the transparency entailed (Creswell & Poth 2018, p. 343; Yin 2011, p. 19).

- Moreover, efforts were made to make a rich account of the context in which the research at hand was carried out by clarifying steps of the fieldwork, data processing and analysis activity. This was applied as well to the participants making up the research sample and sampling strategies. Attempts were made to give a description of the sample and conditions of the conduct of every interview are documented in portraits (chapter 4.1). The idea is to bring the whole atmosphere of the research process to the eyes of the reader.

- Besides this, intersubjectivity was achieved through peer debriefing in a collaborative process with colleague researchers. Bearing in mind the idea that "multiple minds bring multiple ways of analysing and interpreting data" (Saldana 2009, p. 27) researchers from different fields like teachers training, school leadership and teaching in both secondary and tertiary education were collaborating in an interpretation group (chapter 3.5.2). They brought rich expertise to the research project. Their contribution consisted mainly of listening to my progress achieved, giving their comments and inputs as well as asking challenging questions likely to open up my understanding (Creswell & Poth 2018, p. 343). During the coding practice, resorting to collaborative coding was a norm (chapter

3.5.1). This collaborative venture was based on the agreement where we pledged to help one another in our respective projects. Inter-coding served not only the purpose of research findings plausibility but it helped to open up a more complex, in-depth understanding of the topic under investigation (Tracy 2010, p. 844).

The activity of inter-coding applied to all transcripts which account for my database. The inter-coding consisted of independent coding followed by discussions and exchanges between coders about the assigned and emergent codes. The inter-coder agreement was done in regard to the coding system where a common platform for coding was established (Moral et al. 2015; Tracy 2013, p. 191); however, open spaces were kept to integrate more perspectives surfacing from the data set. Peer debriefers were fully engaged in the process since the inter-coding was based on a win-win protocol as I was fully engaged in their projects as well. Moreover, the research is embedded in the already existing theoretical framework in line with educational change and this was made explicit along the way.

All decisions made and all steps undertaken were recorded and kept throughout the research process. Notes on every step, every decision taken are available and any emerging idea and any thought coming in are made explicit in the research process. Furthermore, research transparency materialized through field notes practice, an account of details in transcription and acknowledgement of colleagues' support. (Tracy 2010, p. 842).

Ethical considerations

In the whole process of this study, there was a need to engage in ethical practices and anticipate ethical issues which were expected to arise along the way (Creswell & Poth 2018, p. 215; Creswell 2014). In this regard, efforts were made to address anticipated and emergent ethical issues likely to surface in the moment of data collection, data analysis and findings dissemination (Creswell & Poth 2018, p. 215). Two main ethical concerns captured the researcher's attention. On the one hand, there was a need to reflect on the issue of how to obtain data in ways that enhances their reliability and validity. On the other hand, bearing in mind that qualitative research entails working with people it was necessary to come up with strategies to minimize the potential harm likely to come from the study (Cropley 2015, p. 80).

Primo, cognizant of the interpretative nature of qualitative research, there was always a need to be reflexive as to how the researcher's background and personal experience could have an impact on interpretations and meaning ascribed to data. Pragmatically, there was a need to oscillate between the role of a stranger and an insider. On the one hand, the researcher stood as an observer whose role was to put everything in motion, keep people on track while keeping the interview moving forward and get results (Cohen et al. 2007, p. 366). On the other hand, the researcher was not a stranger to the study as he is a part of it and there was no way to ignore the experience and knowledge he brought into the research. For the balance of both positions, the interpretation group was supportive.

Typically, the researcher is acquainted with the Rwandan educational system in the way that he worked respectively as a teacher and assistant lecturer in the Rwandan secondary and tertiary educational systems. Moreover, he served as secondary school head teacher for more than a decade and he was involved in some other related activities like teachers' training workshops, educational seminars and marking students' national examinations. Being a teacher and a headmaster, definitely, the researcher was involved in the implementation of educational changes undertaken in the Rwandan educational system. Therefore, he brings knowledge of the structure of the Rwandan educational system, the changes which were initiated in the system, how they were implemented and some knowledge about teachers' reactions to those changes. All those elements shed light on the connection between the researcher and the study field and they may potentially shape the way the researcher interprets data (Creswell 2014). To overcome any bias associated with the researcher's background, the strategy of working collaboratively with other researchers from other contexts was very helpful.

Secundo, procedural ethics in qualitative research is achieved by considering the universally accepted ethical mandates including commitments to not harm, to avoid deceptions and fraud, to negotiate informed consent and to ensure privacy and confidentiality (Tracy 2010, p. 247). All measures taken in this regard aimed to address the issue of respect for persons, concern for the welfare and justice (Creswell & Poth 2018, p. 215). While collecting data, before the interview process, participants were given enough details regarding the inquiry and how the data would be used. They were ensured that their revelations would be kept confidential and were given a guarantee that no consequences would befall them. They were explained that their participation was fully voluntary and they were

asked permission for further interview-related activities like tape-recording. To this end, a latitude was given to them to choose whether they wanted to participate or they liked to drop their participation. Based on the quality of clarifications, all contacted participants accepted willingly to take part in the research. The success in this regard stems from the competence of participants as well. All teachers who make up the sample for this research are university graduates and thusly they are more or less informed about research.

The provision of all those details and clarifications yielded other benefits. They helped to build a climate of trust between the interviewer and interviewees which stand as a prerequisite to the success of the interview. In the late stages of fieldwork, a present was given, after each interview, as acknowledgement for participating and willingness to share their information. I have to acknowledge that this idea came late, it was not reflected while conducting early interviews. The principle of confidentiality of participants' identities was a norm and this was achieved through the anonymization process where all information related to participants' profile were masked (Creswell & Poth 2018, p. 215; Cohen et al. 2007, p. 64). Pragmatically, interviews were audiotaped and while transcribing, pseudonyms were used for individuals and places for the sake of anonymization (chapter 3.4.1). To this end, efforts were oriented to make sure that, besides the researcher, no other person will be able to link the information to the information-giver or to recognize who said what in the process. Names of African big rivers were assigned to participants in order to not reveal their identities and profiles and thusly achieve the idea of non-traceability (chapter 3.4.1). Furthermore, there was a need to respect the research sites to leave them undisturbed after the study (Creswell 2014).

Besides, there were other aspects to take into consideration as well. Being mindful of the structure of the school calendar, interviews were planned in a way to minimize the disruption of classes and other school activities. The intention was to conduct interviews during the holiday period, but this did not work as planned since many teachers could not be reached during that period. Therefore, some interviews were carried out during the work time, however, headmasters helped the researcher to find a favourable moment for the interview taking into account the plans of teachers' daily activities. In addition, the security of data was ensured by keeping them out of reach of other people, in the personal computer which is merely accessed by the researcher.

All those considerations discussed above proved to be pivotal as they helped to establish the trust climate which is critical to the success of the interview. Similarly, they lead to the production of credible data as they helped the participants to feel secure enough to share freely their experiences and beliefs. While reporting, ethical considerations are taken into account as well. The researcher's efforts are especially focused on reporting honestly by taking a descriptive position in the whole process of research. Again, considering the embeddedness of this study in the broad discourse on change in school, ideas, thoughts and findings from other scholars were used along the way and special attention was paid to the acknowledgement of data sources.

4 Results Presentation

This chapter deals with the presentation of the results of this study which was undertaken to investigate the perceptions of teachers on change in schooling. A qualitative approach has been chosen as a research design (chapter 3.1) and data were collected by the use of semi-structured interviews (chapter 3.2.1). A total of 30 interviews were carried out with teachers from different educational backgrounds and different secondary schools in Rwanda (chapter 3.3). The work of data processing was characterized by the transcription, translation and organization of interviews (chapter 3.4). The analysis was done through processes of deductive-inductive coding and abductive reasoning which allowed the consolidation of results and generation of ideal types of how teachers perceive the change in schooling (chapter 3.5).

In the following sections portraits of interviews are presented (chapter 4.1) where the characteristics of the participants, the atmosphere of the interviews together with participants' main assertions are outlined. Abductive reasoning of the coded interviews led to three ideal types of teachers' perceptions of the change in schooling (chapter 4.2). Every type is described (chapter 4.3) by referring to the data. The chapter wraps up with a conclusion which presents a summary of research results (chapter 4.4).

4.1 Presentation of the portraits of the interviews

This section presents portraits of 30 interviews which were carried out with 30 teachers with a length varying from 23 to 93 minutes. Names of African rivers have been used to nickname the interviewees for the sake of participants' anonymity. The portraits give an account of a brief profile of interviewees, the interviews' setting and the main ideas expressed by interviewees regarding their experiences with the change in schools as well as the changing world.

Interview with Akagera

Akagera is a male teacher in a government-aided secondary school in a Rwandan rural area. At the moment of the interview, he is in his late twenties. He is a bachelor's degree holder in education and his experience in teaching is 5-10 years. I conducted the interview with him during the last months of 2018. It was the very first interview and it took 34 minutes.

Akagera is aware that the Rwandan education system has gone through several changes since recently. He talks about some changes including the curriculum change, easy access to education, the introduction of new subject matters, the diversity of the source of knowledge, the reduction of teacher's power in the school setting, the loss of society's education responsibilities, the absence of parents in the education of their children, the increasing mismatch between family and school culture, the dismissal of unqualified teachers and the automatic promotion. Akagera makes an association between the changes happening in education with the changing environment as, he says, the latter is in a position to dictate the kind of education which is needed for the youth in the current moment. He gives his support to the change of curriculum and he understands the rationale behind this idea as he relates it to the government's economic aspirations and the need to meet the requirements of the current changing world. Yet he finds some loopholes in the curriculum and, he claims, it lacks some technicality-related details. The interviewee has a critique on what he calls automatic promotion as, from his perspective, it makes students complete their schooling without requisite knowledge. He finds the role of teachers being limited to the implementation of the change and, from his perspective, that is a big role in the change process. He reveals that in the school where he teaches, they undertake some initiatives likely to help students to learn better. Those initiatives include extra-time learning, home-works, the practice of exams and organization of the students' self-learning.

As far as the changing world is concerned, the interviewee finds life challenging, and the future will be more demanding in terms of reflection and critical thinking. He considers this situation to be a call for people to further learn as they have to find more options to rely on to gain their life since land exploitation cannot be a sustainable solution to rely on anymore. Additionally, he uncovers, the experienced global developments are associated with the change in the behaviours of the youth as they continue to develop habits and culture which are not in line with the existing school culture and, in this regard, it becomes difficult to manage them.

Interview with Awash

Awash is a female teacher in a rural government-aided secondary school. She is married and by the moment of the interview, she is in her late thirties. She is a bachelor's degree holder in teaching subjects and her teaching experience is more than 10 years. I conducted the interview with

Awash in a safe and quiet place in the last months of 2018. Awash is aware of a variety of changes taking place in the Rwandan education system. She argues that changes happening in the educational system come in the shape of new policies which are undertaken by decision-makers and communicated to teachers for implementation. She discusses a number of changes which took place in the educational system including the access to education, the change of curriculum, the learner-centred approach to teaching, the use of ICT in schools, the availability of a variety of technological means, the school feeding program, the scholarship scheme for the tertiary education, the change of subject matters, the parents' contribution in schools' construction, the diversity of sources of knowledge and the change of the language of teaching.

Awash likes some changes as they are associated with positive effects such as facilities in teaching and the increased number of educated people in society. Yet, she says that she is not comfortable with the lack of requisite resources for change implementation. She appreciates the idea of using ICT in schools, but she finds it unrealistic so far as teachers' access to computers is limited. She says that the forces behind the changes are context-related especially the challenging nature of current life where education is relied on to provide relevant solutions. Awash claims that teachers' involvement in the change efforts leaves a lot to be desired. Elsewhere, she claims that she is not comfortable with the idea that job opportunities do not keep pace with the increased numbers of education graduates and this situation, she says, brings about disappointment and demotivation on the side of parents and students. The interviewee elaborates on the idea of the changing world and associates it with demographic developments, growth of knowledge and technological advancements as its driving forces.

Interview with Bandama

Bandama is a male teacher who works in a government-aided school in a Rwandan rural area. At the moment of the interview, he is 25-30 years old and his teaching experience is less than 5 years. He is a diploma holder, and he teaches languages. The interview with him took place in the last half of 2018 at his workplace. The interview took 68 minutes and 13 seconds. He was given room to express his perceptions of the change.

Bandama acknowledges that the Rwandan educational system has gone through several changes especially since recently including the open access to education, the shift of the language of instruction, the use of ICT

in schools, the change of assessment scheme, the curriculum change, the review of success criteria and higher learning admission criteria. He claims that changes happening in the education system are associated with the context of a changing world and national economic aspirations where the country aspires to become a knowledge-based economy. Similarly, he relates changes in education to the felt desire to mend the social fabric which was torn apart by the 1994 Genocide. The interviewee establishes a dividing line in the Rwandan education system, and he separates what he refers to as former and current educational systems.

Bandama claims that education has gained a lot of positive aspects but, as he says, it has lost some important aspects, as well, like strictness among others. He finds a kind of loosening in the system which was brought in by decision makers and it was welcomed by students' parents who dropped their educational responsibilities. On the one hand, he likes some changes including the change of curriculum and the use of ICT in schools. He acknowledges the benefits of the newly introduced competency-based curriculum. But he thinks that for it to be well implemented and achieve expected results, there are still areas of improvement to work on, especially in terms of teachers' in-service training and availability of requisite materials. On the other hand, he has a critique on other changes, particularly the idea of automatic promotion which, from his perspective, is against efforts of quality enhancement. Still talking about the quality, Bandama argues that education is yet to be relevant enough to retain students in the system. Elsewhere, while acknowledging efforts done to expand access to education, the interviewee finds that new day schools do not provide enough care and support to the youth. He argues that all reforms they went through have been planned at the central level by decision-makers and teachers were not involved in the process of change planning.

As far as school-based initiatives are concerned, the interviewee mentions students' clubs' activities and the organization of practice exams. The idea behind this is to keep students busy for easy management and prepare them for national exams and, thusly, keep a good fame of the school. He finds the current environment very changing and, in his narratives, he links the whole situation to the ideas of growth of knowledge and information, globalization and the latest technological development. From his perspective, dimensions of the changing world make life more challenging, especially for the youth. They come with new demands on

the educational system and they require teachers to keep upgrading their knowledge.

Interview with Casamance

Casamance is a male secondary school teacher. He is in his late twenties, and he works in a government-aided school located in a rural area. He is a diploma holder in teaching, and he is a bachelor's candidate. His teaching experience is less than five years, and he has worked in different schools. He was reached through a phone call to arrange the interview setting and I moved to his workplace where I managed to get a safe room for the interview which took 47 minutes.

Casamance is aware of the changes going on in the Rwandan education system and he articulates some of them including the change of teaching methodology where the focus shifted from teacher-centred to learner-centred, the introduction of a new curriculum, the change of the school calendar, the open access to education, the use of ICT in schools with the introduction of one laptop per child policy, the loss of teacher-parents collaboration, the promotion-repetition scheme, catch-up programs to improve literacy, the school feeding program, test-based teacher recruitment, the decrease of teachers' power in class, the loss of community's educational responsibilities, and the higher learning scholarship scheme. He likes and supports some changes like the new curriculum, access to education and adoption of English as a language of instruction. Yet he criticizes and looks sceptical at others as they don't provide him with enough conviction about results. For instance, he does not like the preferential treatment enjoyed by girls and students coming from poor families when it comes to their admission to different levels of government-owned and co-owned schools. From his perspective, too much credit would be given to students' performances, in that process, instead of other considerations. Fundamentally, Casamance likes the idea of educational change in general, but he is not satisfied with the way changes are done. He finds educational changes being driven by diverse factors including the changing context, demographic changes as well as learning concerns. He recognizes that changes are initiated at the top level of the system and teachers play the role of change implementers. However, he discloses some initiatives undertaken at the school level including monitoring students' self-learning, rewarding best performers and organization of students' clubs among others.

As far as the changing world is concerned, the interviewee acknowledges the context-related requirements which are behind the challenging nature of current daily life. From his perspective, the problem of income inequality affects education in a way that, despite the ongoing idea of education for all, quality remains a privilege of some, especially those who can afford it.

Interview with Dawa

Dawa is a male teacher working in a government-aided secondary school located in a rural area. He taught in primary education as well. By the time of the interview, he is 30-35 years old and his teaching experience is more than 10 years. He is a diploma holder in teaching but, while interviewed, he was doing his studies to get a Bachelor's degree in education. The interview with him was carried out in good conditions and it took 38 minutes.

Dawa talks about several changes which have been going on in the Rwandan educational system including the curriculum change, the shift of the language of instruction, easy access to education, the specialization in TTCs and primary school, the promotion-repetition scheme, the class shifts organization and the change of perspectives to education. He acknowledges the top-down nature of changes where teachers play the role of change implementers. However, he appreciates the initiatives which are undertaken at their school to help students to get ready for national exams and keep good fame for their school. On the one hand, Dawa supports a number of changes including the curriculum change, however, he finds the lack of requisite materials as a challenge to its implementation. On the other hand, he criticizes some changes including the idea of teachers' specialization and the promotion-repetition scheme as, from his perspective, they are not associated with good results. He claims that changes in the Rwandan education system have been driven by factors like the demographic explosion, contextual forces, the economic transformation agenda by the government and the desire to copy from others. He recognizes the challenging nature of daily life, and he anticipates the future to be more challenging and demanding. Therefore, he keeps high expectations on education to turn things around.

Interview with Kafue

Kafue is a female teacher who works in a government-aided school located in a semi-urban area. She is a bachelor's degree holder in non-teaching subjects. By the time of the interview, she is doing her post-graduate studies in education. She teaches humanity-related subjects. I met her for the interview in the middle of 2019 and we had the interview in a quiet place. She is aware that the Rwandan education system has gone through a number of changes especially since recently. In her narrative, she elaborates on some changes including the access to education, the change of curriculum, the use of ICT in schools, the diversity of sources of knowledge, the change of subject matters, the automatic promotion, the decrease of teachers' power in classes, the increase of students' awareness of their rights and freedom and the change in the use of punishments in schools with associated consequences in terms of students' misbehaviours.

She claims that drivers of educational change are requirements of a changing context, the latest technological developments and demographic trends. She is happy with some changes including the introduction of a new competency-based curriculum. However, from her perspective, its implementation leaves much to be desired in terms of the provision of materials and teachers' competencies. She criticizes the change in protocols regulating students' promotion and repetition and she doesn't expect good results from it. She recognises the top-down nature of changes and wishes a review of that trend to reconsider the involvement of teachers in the change

Kafue is aware that the world is changing and, as a consequence, life becomes more and more challenging. She holds the view that the factors which are behind the idea of a changing world are demographic changes as the resources become scarce as well as technological developments. From her understanding, further changes in the education system are needed to respond to this situation; she sees the need to put students in contact with the realities of daily life through class organizations like field trips.

Interview with Kunene

Kunene is a female teacher who works in a secondary government-aided school. By the time of the interview, she is in her thirties and her teaching

experience is less than 10 years. She is a bachelor's degree holder in teaching and her school is located in an urban area. The interview with Kunene was conducted in the middle of 2019 and it took 39 minutes.

Kunene is aware that the Rwandan education system has gone through several and, in her narratives, she discusses some of them including the curriculum change, the change of subject matters, the shift of the language of instruction, the change in the organization of teacher training, the emphasis on the use of local teaching aids, the focus on knowledge application, teachers' qualification in kindergarten and the change of perspectives to education. She likes and supports a number of changes as she understands their relevance, however, she is in discomfort with the lack of change-enabling materials. She is uncertain in regard to some changes as she finds that teachers are asked to teach in a system which is different from how they learnt. From her perspective, they miss a point reference. Similarly, she is frustrated and puzzled by some changes which keep coming unexpectedly as, she says, they are not associated with good results. Kunene understands that changes in the educational system are motivated by the desire to achieve better learning. She claims that changes come from decision-making levels, yet teachers are involved in the change process since they get room to give their input especially in regard to the curriculum change.

As far as the changing world is concerned, Kunene is aware of the challenging nature of the current daily life and, therefore, she wishes education would help the youth to develop problem-solving and critical thinking competencies so as to live their life.

Interview with Kwango

Mr Kwango is a teacher in a secondary school located in a rural area. By the time of the interview, he is 30-35 years old and his teaching experience is 5-10 years. Being a bachelor's degree holder in non-teaching subjects, he basically teaches humanity-related subjects. The interview arrangements were done through WhatsApp chats. It took place in the second half of 2019 and it lasted 43 minutes and 55 seconds.

Kwango is aware of the changes going on in the Rwandan educational system. He is happy with most of the changes and, he says, he understands the relevance of those changes. However, he is not happy with other changes including the change of the instruction language and the change of the school calendar. Moreover, he claims that some changes

lack clarity, and this leads to poor implementation. He acknowledges that most of the changes are poorly resourced and some of them are associated with the intensification of work on the side of teachers. The interviewee can articulate the positive impacts of most changes including students' learning, easy access to education, enhanced girls' opportunities to learn, and the diversity of possibilities of students' learning. However, from his narrative, the change did not address the teaching practice in a convincing way. Similarly, he discloses that some changes are associated with side-effects like students' misbehaviours among others. The interviewee identifies the pursuit of the Rwandan identity, the changing world and demographic factors as drivers of the change in education.

Mr Kwango recognizes that the world has been changing and he just discusses the situation of scarcity of resources as the factor behind the move. However, he is aware of the impact of the changing world on education and the necessity of quality education as a basis for life. He finds that the role of teachers in change is limited to the implementation of changes coming from above. As far as school-based changes are concerned, he mentions students' self-learning organization and students' discussion in clubs as the school's specific initiatives.

Interview with Limpopo

Limpopo is a male teacher who works in a government-aided TVET school in an urban area. At the moment of the interview, Limpopo is in his early thirties with a working experience in the teaching of more than five years. The interview with him took place at the beginning of the year 2020 and it is carried out in a quiet place meticulously arranged at his workplace. He is a holder of a university degree, and he participated in in-service training. The interview with him took 45 minutes.

The interviewee is aware that the Rwandan education system has gone through a number of changes. He addresses some of them including the change of understanding of the role of teachers in class, the diversity of sources of knowledge, the change of understanding of education, learning as learners' responsibility, the change of curriculum, the introduction of more learning opportunities, the use of ICT in schools, the shift of the medium of instruction from French to English and the professionalization of teachers. Talking about the forces behind those changes he mentions contextual factors including the requirements of the changing world, technological developments and demographic structural change in the shape of population growth.

Limpopo is cognizant that changes have improved the education system to make it well organized in comparison to what he refers to as 'the former system'. Similarly, he acknowledges that teaching and learning have been made easy by the progress brought about by technological developments. Basically, he is happy with the use of ICT in schools, he likes this change and he finds comfort in it. Similarly, he likes the idea of curriculum change as he finds the new curriculum relevant and able to appeal to students to make use of their critical thinking skills. However, he assumes that the new curriculum was not ready at the moment it was launched. He wishes it may be stable for a certain period without other changes to it. Furthermore, he criticizes the change of the language of instruction as it was quickly done and teachers were not ready enough to implement it. He finds the issue of low teachers' salaries to be a hindrance to efforts undertaken in the Rwandan educational system to enhance its quality. As far as school-based changes are concerned, the interviewee acknowledges the importance of training that they organize internally within their workplace.

Limpopo is aware of the changing world and can discuss some factors behind the change including the growth of knowledge and information, technological developments, and demographic forces. Limpopo shows an ambivalent attitude towards the impact of this move of changing world on society and education. On the one hand, he says, access to knowledge was enabled and the health system improved; on the other hand, he says, this wide access to information has broken taboos and thusly opened doors to new forms of behaviours and immorality of teens.

Interview with Lualaba

Lualaba is a female teacher who teaches in a government-aided secondary school in an urban area. At the moment of the interview, she is in her early thirties with an experience of more than 10 years in teaching. The interview with Lualaba took place in early 2020 in a safe quiet place at her workplace. She shared her experience with the change in the Rwandan education system.

She recognizes that changes happen and she elaborates on some including the change of the curriculum, the change of the teaching approach with the learner-centred teaching gaining more ground in the system, the use of a modular system as well as the idea of specialization in TVET education. Moreover, in her narratives, she talks about the change of perspectives on teachers' roles in class as, she says, they currently serve

as guides to students. Besides, she finds that students today don't value education; as a result, they lack the commitment to learning. She likes the idea of curriculum change in general, however, she is unhappy that change-related enabling materials and textbooks are not provided.

As far as her awareness of the changing world is concerned, she sees the current youth being acculturated by contact with other cultures. She underlines that if nothing is done the Rwandan culture is at stake. She says that a changed value-oriented education, enacted by various factors including the media can rectify the worsening situation.

Interview with Mania

Mania is a male teacher who works in a government-aided TVET school which is located in an urban area of Rwanda. At the moment of the interview, he is in his early thirties with a teaching experience of more than five years. The interview with him took place in early 2020 at his workplace in a quiet room and all conditions were conducive to a successful interview of 44 minutes.

Mania is aware of changes happening in the Rwandan education system and in his narrative, he discusses some changes including the change of the curriculum in TVET which entails the learner-centred teaching approach, the change of the names of TVET departments, the specialization, the use of the modular system, the reorganization of subject matters and their differentiation in core and general. Moreover, he talks about other changes like the use of ICT in schools which is praised for having offered a diversity of sources of knowledge to students and opportunities for teachers' professional development. Furthermore, he discusses the change of understanding of teachers' roles in a class setting where they are currently considered as guides, facilitators and organizers of learning. Similarly, he mentions the change of understanding of education as the latter is considered to be a necessity for life. In general, he claims that changes which happened in the educational system have improved learning. He keeps high expectations about the new organization of education and looks forward to the future as he says that the best is yet to come.

Mania supports the newly introduced curriculum; he finds it relevant and associated with good results. However, he considers it to be more beneficial to smart and committed students since they are able to make use of available facilities while some lazy learners, he claims, will be lagging behind. Yet, he is not happy with the contradictions he sees in mes-

sages provided by the institutions (REB, WDA and RP) which are mandated to coordinate the educational system in Rwanda. He criticizes the lack of harmonization of decisions and recommendations which come from those three institutions. From his point of view, the teaching practice has changed but there is a status quo in national examination settings and activities. He is unhappy, puzzled and frustrated about this and finds it detrimental to the efforts for change.

As far as school-based initiatives are concerned, he mentions the idea of staff meetings for self-assessment where teachers in his school get the opportunity to discuss their shortcomings for the sake of improvement.

Mania is aware of the changes happening in the world and he says that they gave rise to the improvement of education through the availability of teaching and learning enabling facilities. He acknowledges that the current time is demanding in terms of knowledge which can only be accessed through education.

Interview with Molopo

Molopo is a male teacher who is in his thirties with a considerable teaching experience at the time of the interview. He is a teacher in a secondary school located in a rural area. He has a university diploma. The interview with him took place in early 2020. He was joined at his workplace and accepted to share his perceptions of the change. Molopo is aware of the changing nature of the Rwandan educational system and he associates the changes with the desire to achieve the social welfare agenda by the government, the learning improvement and the need to meet the requirements of the current changing environment. He talks about some changes which happened in the system including the change of parents' perspectives on the education of their children, the change of the medium of instruction in general and subsequent language changes in lower primary education, the change of curriculum, the change of subject matters to be taught, the change in regard to the quality of teachers and students where current students are characterized by the lack of commitment, bad behaviours and greediness. Furthermore, he talks about the change in regard to teachers' professionalization and dismissing unqualified teachers.

He appreciates the idea of the curriculum change and supports the newly introduced competency-based curriculum, he finds it relevant as, he says, it is designed in a way to help students develop competencies required for the labour market. However, he does not appreciate the way

changes are generally initiated in Rwanda. He does not like the idea of frequent changes as, he says, they end up bringing back practices and ideas which were given up before and, subsequently, resulting in contradicting changes over time. Similarly, he finds a gap in some changes as they are not well prepared and, thusly, expectations of them are very low. He is frustrated and puzzled by some other changes including the change of subject matters and the idea of teachers' professionalization where some teachers got notifications that soon or later they will get fired because they are not qualified to teach. He acknowledges that changes in education come from above as they are initiated by decision-makers. As far as school-based changes are concerned, he mentions the organization of students' self-learning early in the morning before class and late in the evening after class. He says that students are not left on their own in that process rather teachers organize themselves to monitor students in self-learning.

The interviewee is aware of the changing nature of the world and she claims that some changes happening in the schooling are results of that trend. He recognizes that things are happening fast in the world and people including teachers make efforts to keep pace. In this regard, he says, teachers invest efforts in income-generating projects and, consequently, show a lack of commitment to their main job of teaching.

Interview with Mono

Mono is a male teacher who is in his thirties at the moment of the interview. He had been working as a teacher for more than five years. He works in a government-aided school in a rural area of Rwanda. The interview with him took place in early 2020 and it was conducted in a safe and quiet place. The whole interview took 40 minutes.

Mono recognizes that the Rwandan educational system has gone through a number of changes, including the shift from teacher-centred to learner-centred teaching methods where students have taken on their responsibilities in learning and their interests and skills are considered as foundations for the teaching process. Moreover, he mentions the change of regulations guiding the promotion and repetition of students. He talks about further changes like the change of curriculum, the provision and production of teaching aids, the shift of power balance in classroom settings where teachers' power got decreased over time, and the idea of the diversity of sources of knowledge. Mono argues that teachers are no

longer the only source of knowledge rather students can learn from radio, television and the internet.

Mono appreciates the change of curriculum as he finds in the new curriculum potential to boost education delivery to the next levels in the future. However, he has an ambivalent attitude in regard to the change of promotion and repetition protocols. On the one hand, he appreciates it as he believes that it can improve students retention, and on the other hand, he finds it as a hindrance to the efforts undertaken to improve educational quality. From his perspective, students get promoted to higher grades regardless of their academic performance which results in a lack of competitive spirit in classes. Besides, the interviewee does not like the idea of dismissing unqualified teachers.

Mono expresses his concerns in regard to the change in general. He claims that the system changes a lot and, from his perspective, some changes are not well prepared. He wishes for the stability of the system and advocates for evidence-based changes.

As far as school-based initiatives are concerned, the interviewee mentions the organization of students' self-learning under the supervision of teachers, the joint effort in managing students' discipline and the practice of exams. He says that those initiatives have been undertaken to help students to learn better. Mono is aware of the changes happening in the world and he says that the changing world is offering a variety of facilities and opportunities to the youth, but he says that he is not sure if they are ready to take them. Similarly, he says that there are lots of teaching-enabling facilities which are coming along with the developments going on in the world.

Interview with Ngolo

Ngolo is a female teacher who works in a government-aided school located in a rural area of Rwanda. By the time of the interview, she is in her mid-twenties. She has a teaching experience of less than five years. The interview with her took place in early 2020 in a quiet room. It was a short interview of about 20 minutes but all topics of the interview guide were discussed and it was considered for its particular contribution to this study.

Being a new teacher, Ngolo appreciates the organization of the Rwandan education system and acknowledges that it changes a lot. In her narrative, she comes back to some changes including the change of the curriculum, the improvement in the provision and availability of teaching

and learning facilities, the availability of qualified teachers and the idea of good school administration. Being a graduate of the Rwandan education system, she recognizes that changes are making a difference. However, she finds areas of improvement, especially in terms of the provision of school materials and textbooks and the extension of infrastructures. She finds the newly introduced curriculum too ambitious and not adapted to the level of understanding of students, especially in 12 YBE. She is not comfortable with its ambitious objectives and goes far ahead to suggest a curriculum review.

Concerning the idea of a changing world she says that life is currently challenging and education is expected to play a key role in efforts to meet current life's requirements.

Interview with Nile

Nile is a male teacher who is in his thirties. He works in a government-aided school located in a rural area of Rwanda. His teaching experience is less than ten years. The interview with him took place at his workplace in early 2020.

Nile is aware of changes which have been going on in the Rwandan educational system, especially in recent years. In his narratives, he elaborates on a number of changes, including the shift of the language of instruction, the change of curriculum from KBC to CBC, the adoption of learner-centred teaching methods, the improvement of teachers' living conditions through the contribution of U-Sacco, the use of ICT in schools where teachers and students can have access to ICT facilities. Nile explains that some teachers enjoy working in smart classrooms. He underlines that the change in the teachers' recruitment process through exams brings fairness into the system.

The interviewee appreciates the change of curriculum. For him, the new curriculum is very relevant as it helps teachers to link their teaching to students' daily life and, by this, it will benefit not only learners but the Rwandan society at large, as well. The interviewee claims that he is satisfied with changes in general and, in his narrative, he associates almost every change with the idea of learning improvement.

The teacher is informed about the current changing nature of the world and he can elaborate on the role played by the latest technological developments. He acknowledges that world developments are linked to

educational quality in the sense that they contribute to the enhancement of teaching and help the youth to develop their critical thinking.

As far as school-based initiatives are concerned, he appreciates the organization of students' self-learning in their school and mentions the idea of practice exams organized for better preparation of students.

Interview with Oba

Oba is a male teacher who works in a Government-aided secondary school located in an urban area of Rwanda. By the time of the interview, he was in his early thirties with a teaching experience of more than 10 years. The interview with him took place in early 2020 at his workplace and he freely discussed all the topics in the interview guide.

Oba acknowledges that the Rwandan educational system is dynamic as it has been going through frequent changes especially since recently. In his narratives, he shared his experience with some changes including the change of the curriculum with the introduction of CBC, the shift of the language of instruction, the open access to education through the free and compulsory 12YBE, the change of the teaching approach with the focus being currently put on the application of the knowledge instead of the rote memorization of knowledge, the use of the ICT in schools, the introduction of Itorero in schools and the idea of the school feeding program in 9 and 12YBE to improve the school retention capability. Additionally, the interviewee discussed other changes like the change in the quality of students. In this vein, he says that the current students don't give due credit to the education as it is free of charge and, consequently, they lack the commitment to learning. Similarly, he talks about the new understanding of the role and position of teachers in the class where the latter acknowledge their limitations and the possibilities to learn from their students. He goes on to elaborate on the issue of the lack of strictness regarding the students' management and the loss of teachers' authority over students with the teachers being deprived of their rights to make some decisions in the school and classroom settings.

He likes the changing characteristic of the Rwandan education system but he argues that frequent changes can lead to instability in the system. He supports the new teaching approach which focuses on the application of knowledge and gives room to students to take on their responsibilities in their learning; however, he says that its translation into practice is not yet achieved. He uncovers twofold factors which are behind the status quo

in teaching practice. First, he points to the lack of proficiency in English which stands as a barrier preventing students from doing research independently. Second, he mentions the feeling of pressure for teachers to run after the time to cover the program. In the same perspective, he identifies more aspects which are challenges to the change initiatives like the age of teachers with the elder teachers being late to adapt to changes and the low understanding of parents about their role in the education of their kids.

He argues that changes in schools are initiated by the top decision-makers and they are driven by the requirements of the changing world and the structure of the labour market. As far as the school-based changes are concerned, the interviewee mentions the idea of organizing students in different clubs for different purposes.

Oba acknowledges the changing world and he says that the new developments going on in the world brought several enabling teaching and learning facilities. Similarly, he claims that new requirements were brought in as a result of that phenomenon.

Interview with Okavango

The interviewee was nicknamed Okavango for the sake of anonymization. He is a male teacher in a government-aided school located in an urban area of Rwanda. By the time of the interview, he is in his late thirties with a teaching experience of more than 5 years. The interview with Okavango took place at his workplace in early 2020 and he got room to share his experience with the change in the Rwandan educational system.

In his narrative, Okavango discusses some changes which happened in the educational system including the change of curriculum, the implementation of learner-centred teaching, the use of ICT in schools, the shift of the language of instruction from English to Kinyarwanda in lower primary education and the change of subject matters as a result of the growth of knowledge. Furthermore, he discusses other developments like the change in the understanding of the role of teachers in classes from masters of the knowledge to learning guides, the understanding of education as a basis for life and the idea of students' demotivation as a result of a high unemployment rate observed among educated people. Again, Okavango highlights the idea of the change in the teachers' management system where, on the one hand, they get a horizontal promotion subject to the fulfilment of a certain number of the performance criteria and the dismissal of the unqualified teachers, on the other hand. Okavango likes the idea of learner-centred teaching and he finds it associated with the

reduction of the teachers' workload since students can work on their own, to some extent. He appreciates the idea of the horizontal promotion of the teachers as it is linked to a slight increase in their salaries. Similarly, he is happy with the new curriculum which, he says, emphasizes the application of knowledge; however, he finds it too ambitious due to the length of the content to be covered in one year. Okavango is frustrated by some contradicting messages which he finds in some change decisions including the shift of the instruction language in lower primary education and the looming dismissal of the unqualified teachers.

The interviewee says that changes are initiated by the top decision-makers and land to teachers in the shape of recommendations sometimes contradictory ones and decisions to be implemented in school and class settings. Regarding school-based initiatives, the interviewee mentions the idea of the organization of students' self-learning, the coaching which is done for the national exams' candidates and the conduct of the morning assemblies where students learn about life through interactions with their educators.

Okavango recognizes that the current daily life is challenging due to the developments associated with the changing world. However, he has high expectations in education as it empowers people to be ready to cope with the challenges of life in a successful way.

Interview with Orange

Orange is a male teacher who works in a Government-aided school located in an urban area in Rwanda. By the time of the interview, he is in his early thirties and he had been working as a teacher for less than 10 years. The interview with him took place in early 2020 at his workplace in a quiet place and the whole interview took 30 minutes.

Orange is aware of the changing nature of the Rwandan educational system and he shared his experiences on some changes. The majority of the changes which come into his mind are those in relation to the teachers' change including the change of teachers' practices and the change of the teachers' understanding of their role in class settings where they currently see themselves as guides, facilitators and friends of students. Similarly, he says, teachers do not consider students as empty bags to be filled with knowledge. Rather, the students are currently viewed as teachers' friends who need relevant knowledge in a variety of domains for the sake

of their openness to a diversity of developments happening in the world. He talks about other changes including the change of the curriculum from KBC to CBC, the change of the teaching methods where learner-centred methods are currently being implemented, the use of ICT in schools and the change of promotion and repetition protocols which brought the idea of automatic promotion and zero repetition. He claims that the changing nature of the system is driven by the ambition to impart the relevant knowledge to the youth likely to help them cope with the challenges of their current daily life.

He supports the idea of curriculum change as it provides room for students to take on their responsibilities in their learning; however, he finds it too ambitious when it comes to covering the syllabus in the planned timeframe. He has contradictory opinions regarding the teachers' involvement in the change. On the one hand, he says that they get room to give their feedback to the change initiatives and, on the other hand, he criticizes the change process by saying that decision-makers think for teachers and they do not consider their inputs in the change process. As far as the school-based changes are concerned, he mentions two initiatives which he claims to be specific for their school namely teaching students about the idea of job creation and the activities of the media club which equips students with the competencies to speak in public.

Orange is aware of the idea that the world is changing and the education system is thusly affected by developments going on in the world. He finds technological developments to be the main force driving the changing world.

Interview with Pungwe

The interviewee was nicknamed Pungwe for the sake of anonymity. He is a male teacher who works in a TVET private school in an urban area of Rwanda. By the time of the interview, he is in his early thirties with a teaching experience of less than ten years. The interview with him took place in early 2020 and it was carried out at his workplace in a quiet room and a safe atmosphere. The interviewee got enough room to discuss freely his experience with the change in the Rwandan education system.

Pungwe is aware of the changing characteristic of the Rwandan educational system and, in his narrative, he discusses some changes which happened in the system including the change of the curriculum, the change of subject matters with new subjects coming in and others being removed from the program. Similarly, he talks about the change in the

teaching approach where a special focus is currently put on the application of knowledge. Furthermore, he talks about the idea of the use of the modular system which is quite new in secondary education and, again, he mentions a change in the departments' structure in the TVET education stream.

He appreciates the changes in general as they are associated with the improvement of learning. As a matter of fact, he likes the new curriculum which he finds relevant since, according to him, it helps to adapt the education system to the requirements of the current moment. He says that the current teaching provides students with a good package of practical knowledge; however, he finds the curriculum too ambitious by looking at the prescribed amount of theoretical knowledge to be covered. Similarly, he is not happy with the amount of teaching documents they are required to keep daily. In so far as the school-based changes are concerned, the interviewee mentions and is proud of their idea of involving students in school projects which are opportunities for them to apply the acquired knowledge.

Pungwe acknowledges that the world is changing and the youth makes efforts to adapt to the change. He shared his ideas about the adaptation to the requirements of the current time. He recognizes that, in the current period, people need to show competencies at the workplace instead of boasting that they just know. From his standpoint, what matters the most is what they can do in a particular setting and not what they claim to know.

Interview with Ruvubu

Ruvubu is a male teacher who works in a private school in a Rwandan urban area. During the time of the interview, he was in his early thirties with a teaching experience of less than five years. The interview with Ruvubu was carried out in early 2020. It took place in a safe quiet environment and he was given a room to share freely his experience with changes in the Rwandan education system.

Ruvubu addresses several changes which happened in the Rwandan education system including the change of the curriculum with the introduction of the new approach of competency-based teaching, the shift of the instruction language from French to English, the open access to education where everyone is expected to get his/her share to the benefits of education and the adoption of learner-centred teaching approach which,

he argues, materializes through the provision of individual supports to students. Moreover, he discusses the idea of teaching professionalization which is associated with the dismissal of so-called unqualified teachers. Additionally, he acknowledges the current awareness of educational benefits by students' parents which helps a lot when it comes to access to education and retention. As far as forces behind changes are concerned, Ruvubu says that education is currently more or less being shaped by the prevailing requirements which are associated with the current fast-changing environment.

He finds some changes interlinked because he holds the view that the more the schools became caring through the change in the teaching approaches and teachers' attitudes in the classroom, the better the access to education has been. Consequently, he says, young people become motivated to join the school and can stay in it since they find the school friendlier. He has high expectations about the learner-centred teaching approach being currently implemented. However, he looks puzzled when it comes to the idea of teaching professionalization as he finds some contradictions in the communications associated with it.

Ruvubu is aware of the idea of the changing world and recognizes that everyone can feel it and, he says, there is a need for people to be formally educated to meet the requirements coming together with the new developments going on in the world. Ruvubu finds that technological developments are the forces driving the changes happening in the world. As far as the school-based initiatives are concerned, the interviewee mentions the idea of organizing students' self-learning where teachers take turns in monitoring it on a daily basis.

Interview with Ruvuma

Ruvuma is a male teacher working in a private secondary school located in a Rwandan rural area. By the time of the interview with him, he was in the middle of his thirties with a teaching experience of less than ten years. The interview with him was held at the beginning of the year 2020 and it took place in a quiet place within the premises of his school. He got room to discuss and share his experiences with changes in the Rwandan education system.

Ruvuma talks about some changes which took place in the Rwandan education system including the change of the curriculum where the focus is currently put on competency-based teaching coupled with the learner-

centred approach to teaching. Similarly, he discusses the shift of the language of instruction and addresses other new developments like the focus on TVET, the use of the ICT in schools, the inclusion in education and the idea of comprehensive assessment which brought in new protocols regarding the end-of-term and end-of-year exams. Additionally, he highlights the focus on the consideration of student's rights and the associated rights 'abuse by the latter in the school/class setting. The interviewee is happy with the idea of the change of the curriculum as he finds the new curriculum more guiding and relevant since, from his point of view, it was designed in line with the labour market's requirements. Similarly, he appreciates the new move of comprehensive assessments as he says, it allows teachers to face the results of their practices and identify their shortcomings. However, he is somehow frustrated with the idea of frequent changes coming into schooling.

As far as the school-based initiatives are concerned, Ruvuma mentions the ideas of students' self-learning organization being monitored by teachers, the teachers' mutual support in teaching, the practice exams and the hiring of the workforce from school alumni to work in school-based projects. In the whole narrative, the interviewee does not talk explicitly about the idea of the changing world.

Interview with Sanaga

Sanaga is a male teacher who works in a Government school located in a semi-urban area of Rwanda. He is a qualified teacher for general education and he has participated in a variety of in-service teacher training. By the time of the interview, he was in his late thirties with an important teaching experience of less than ten years. The interview with him was carried out by a colleague researcher in the middle of 2020 and it took place in a quiet place where he was given enough room to elaborate on his experience with the change in education in a 93-minute long interview.

Sanaga is aware of the changes which have been happening in the Rwandan educational system and, in the course of the interview, he touched on some of them including the change of the language of instruction from French to English which he found very challenging as teachers were asked to teach in the language they were not familiar with. Similarly, he talks about the change in the curriculum which shifted to a compe-

tency-based orientation. He makes it clear that the change in the curriculum was associated with the change in the approach to teaching with the new trend being to put learners at the centre of class activities. He discusses more changes which took place including the change of the school calendar with the new school year starting from January and running up to the end of October, the change of subject matters, the change of examinable subjects, the use of the ICT in schools, the change of textbooks, the change in students' placement system with the idea being to take into consideration students' interests and skills in their orientation in the upper secondary school grades. Furthermore, Sanaga argues that there has been a change in the teachers' understanding of their role as, instead of their classic role of instructors, they took on the new roles of guides, facilitators, advisors, students' friends and parents. Similarly, he points out to the change in teachers' understanding of education as they currently take it as a children's right. To this end, he claims, education has been open to all and this open access, he says, is enacted through several new policies like inclusive education, the commitment to ensure that students attend neighbouring schools, the compulsory and free basic education with the pledge to fight against the issue of school drop-outs. In comparison to the former period, he finds current teachers professionally competent as they are committed to their work, caring, knowledgeable and hardworking due to the introduction of the new idea of accountability enacted through performance contracts. However, he says, those qualities do not find an echo on the side of students as the latter are currently characterized by the lack of commitment to learning, misbehaviours and the lack of purpose of life.

In his narratives, Sanaga makes identification of some forces which drive the change in education. Those forces include the ideas of technological development, specific Government policies like national reconstruction and economic integration, a sense of emulation, world contextual challenges and the inner aspirations to improve students' learning. He appreciates the idea of the curriculum change; however, he did not find it well-prepared when it was introduced. He wishes it would have been undertaken in a comprehensive but gradual way by affecting a new cohort of students and, thusly, phasing out the former one. To this end, he is pessimistic about the results of the change. He claims that the implementation of the new curriculum will be a success if the challenges of lack of learning-enabling facilities, overcrowded classes and heavy teachers' workload are tackled. Sanaga claims that all changes come from above (top-down changes) and the teachers' innovative space is limited to a few

initiatives which are meant to help the school organization and students' commitment to learning.

Sanaga is aware of the changing nature of the current environment resulting in a challenging life. With this in mind, he looks to the future with a pessimistic eye as he finds the human being's life being at stake due to some natural and manmade happenings. The worst of it is, from his perspective, that the current youth misbehave and do not have a clear purpose in life. This situation, he says, coupled with the idea of parents giving up their educational responsibilities makes it difficult to expect any bright future ahead.

Interview with Sankuru

Sankuru is a female teacher working in a Government school of general education located in a semi-urban area of Rwanda. By the time of the interview, she is in her late thirties with a teaching experience of less than 10 years. She is a qualified teacher for secondary education and she participated in some in-service teacher trainings. The interview with Sankuru took place at her home and it was carried out by a colleague who is a member of my PhD learning community in mid-2020. The interviewee got enough room to share her experience with changes in the Rwandan educational system. At the beginning of the interview, she was not open enough to talk; but her openness grew along the way.

Sankuru openly claims that, besides the curriculum change and frequent reshuffles of top educational policymakers, there is no other significant change which happened in the Rwandan educational system. However, in the course of the interview, she gives an account of some aspects which came into the system as novelties. To this end, she mentions the use of ICT in schools and the implementation of the CBC which, she says, affected the teaching practice by putting learners at the centre of class activities. Similarly, she discusses the idea of students' automatic promotion in grades and she brings forth the issue of current students being characterized by a lack of commitment to learning and a sense of fearlessness. She says that the implementation of CBC consists of organizing students in groups of works which she finds boring, time-consuming and ineffective. She makes it clear that they comply with the CBC approach; however, they find a way to come back to the old system where teachers determine what students need to learn and come up with their strategies to plainly explain it to them. She finds the old system conducive to better learning.

Sankuru sees a certain mismatch when she looks at the requirements associated with the current teaching job and the available teaching time. Basically, she acknowledges that changes happening in the education system come from above and they reach teachers in the shape of instructions to abide by. She claims that she is ready to accept and implement any change coming her way as she does never bother questioning things which she cannot change. Additionally, she discusses some initiatives they undertake at the school level including the teachers' mutual support to improve the teaching, internally organized teachers' in-service training and the organization of students' self-learning sessions as they are monitored by the teachers.

Sankuru recognizes the changing nature of the current world and she says that people work hard to keep pace with changes. From her perspective, the youth need to go beyond class routines and embark on a comprehensive education to be able to cope with the current challenging daily life. She finds the entire environment challenging and not conducive to better learning.

Interview with Shangani

Shangani is a male teacher who works in a Government-aided school located in a Rwandan urban area. The interview with him took place in the middle of 2020 by a colleague researcher. By the time of the interview, he is in his late 40s with a teaching experience of more than 20 years in the Rwandan secondary education system. He shared his experience with the change in a 55-minute-long interview.

Shangani is aware of the changing nature of the Rwandan education system and he considers the 1994 Genocide perpetrated against Tutsi as the dividing line when it comes to the history of the educational change in Rwanda. By the time of the Genocide, he was a teacher and he claims that he started noticing some changes immediately in the aftermath of it, especially on the side of students. He says that the latter were not respectful as they used to be, they showed low discipline standards and they lacked the commitment to learning rather they were interested in certificate acquisition at the expense of academic performance. On the other side, he found out that teachers lost their commitment to teaching, as well, on the back of their low salary, the deteriorated students quality and frequent educational changes which happened later. He discusses some of those changes which happened in the system including the shift of the

instruction language from French to English, the change of the approach to teaching with the focus being put on the practice, competencies development and relevance of learning.

Similarly, he talks about the change of the curriculum which introduced competency-based teaching with a specific focus being put on learner-centred teaching methods. Furthermore, he elaborated on the idea of open access to education which came as a novelty and was implemented through the policy of the dissemination of schools' infrastructures to help students enjoy the basic education in their neighbourhood. By the same token, he recognizes the expansion of tertiary education which opened wide access to higher learning. Moreover, he appreciates the idea of the availability of qualified teachers and he finds the change in how people view education as they currently see it as a key to development, a necessity for life and a requisite for survival in the current time.

Shangani is appreciative of some changes like the expansion of access to education through the establishment of day schools, on the one hand, and the idea of focussing on knowledge application, instead of theories, which he finds very relevant in the current time, on the other hand. However, he did not appreciate the change of the language of instruction as, he says, the motive behind it was not clear to him. Reflecting on the idea of forces driving changes in education, he mainly links the latter to the requirements of the current changing world as driven by technological developments. Yet he associates them with the Rwandan society's agenda of social transformation and economic development, as well. Shangani claims that changes come from education's top decision-makers but he was able to talk about some initiatives which they independently undertake at the school level. Those include the ideas of providing counselling to students, the organization of assessments and motivating students to learn, through the recognition of their performances by providing rewards to the best performers.

Interview with Songwe

Songwe is a male teacher who works in a Government-aided school in Rwanda. He teaches natural sciences in a school located in an urban area. The interview with him was carried out by a colleague who is a member of my PhD learning community. The interview was conducted at the height of the 2020 global lockdown via a phone call. By the time of the interview, he is in his thirties with a teaching experience of more than 10 years.

Songwe identifies some changes which happened and keep happening in the Rwandan educational system including the change of the curriculum, the change of the language of instruction from French to English, the use of ICT in schools, the organization of classes in shifts, the new idea of the school feeding program and the students' automatic promotion. Similarly, he noticed changes in the quality of students. He says that current students are characterized by a lack of commitment to learning, a low standard of discipline and the non-recognition of education value. Moreover, he claims that education has lost some of its fundamental aspects like parents' and community's educational responsibilities as well as the power of teachers in the class setting.

Talking about the curriculum change, he likes the idea but he finds it not well prepared as it was introduced without any scientific basis when it comes to its relevance to the context of Rwanda. To this end, he claims that teachers pretend to implement the new curriculum but class activities do not reflect it. He does not like the idea of the students' automatic promotion in grades and sees it as a hindrance to the endeavours undertaken to improve the quality of education. He does not have high expectations about the idea of the change of the language of instruction as teachers were asked to teach in English yet they were not ready to do so, and, he adds, subsequent trainings which were organized in that respect were not enough for teachers to use English as the language of instruction. He acknowledges the existence of the organization of English school-based mentorship; however, he does not find it sufficient. He points to the lack of English proficiency on the side of teachers as a serious challenge to the quality of education.

In a nutshell, he blames the instability in the education system and he does not like the idea of frequent and sporadic changes which he rather finds as a mess and says that they are associated with poor educational outcomes. He highlights that all changes come from top decision-makers; however, he discusses some initiatives which are undertaken at the level of his school like the ideas of school-based continuous professional development, rewarding the best-performing students, the self-learning organization being monitored by teachers, clubs' activities and the regular exchange between current students and school alumni.

Songwe is aware of the changing nature of the current world and finds technological developments to be the force driving the trend. He is pessimistic about the current changing world as he claims that society has lost some of its core social and cultural values in the course of the change.

Interview with Tana

The interviewee named Tana for the sake of anonymization is a male teacher working in a Government-aided TVET which is located in a Rwandan rural area. By the time of the interview, he was in his early forties with a teaching experience of more than 15 years. The interview with him was conducted in the second half of 2020 by a colleague researcher who is a member of my PhD learning community. Owing to Covid-19 lockdown-associated measures, he was reached through a phone call. Through the interview, Tana got room to share his experiences with changes in the Rwandan educational system.

Tana is aware of the changing nature of the Rwandan educational system and, in his narrative, he elaborated on some changes which affected a variety of educational aspects including curricula, subject matters, the approach of teaching where students are currently held at the centre of class activities, the teacher's role in the class setting and the power balance in a class setting with the teachers' self-reflected power being at disadvantage. Talking about the change in the approach to teaching, he explains that there have been efforts to shift the focus of teaching from the transmission of knowledge to the development of competencies. Moreover, he discusses the changes in regard to how people consider education with the new trend being education as a basis for national development and a necessity for life. He sees another change regarding educational monitoring as various stakeholders have been involved in that process. He says that there have been efforts to make educational services more accessible yet the quality of students has changed as well with the current students being characterized by a lack of commitment to learning, the lack of respect and low discipline standards. Furthermore, he talks about the use of ICT in schools as a novelty as well as the idea of automatic promotion when it comes to the promotion of students from grade to grade.

Tana appreciates the idea of open access to education as it is associated with important literacy improvement; however, he claims that the quality of education still leaves a lot to be desired. Similarly, he does not find it fair when he sees efforts being made to improve access to education while teachers seem to be ignored in the change agenda. Again, he does not like the idea of automatic promotion in schools and he finds the use of ICT in schools, which he terms "invasion of the ICT in schools", as a challenge to learning. Actually, he finds it too ambitious, poorly resourced

and only benefitting children coming from well-off families while he argues, leaving their counterparts from the disadvantaged background at a disadvantage. He calls it a challenge to learning since the use of technology has outclassed and overshadowed the sense of creativity on the side of students. All in all, he finds educational changes coming from the top decision-makers with the role of teachers being limited to the implementation of the change. Similarly, he finds that changes are frequent and this leads to the situation of instability in the system. In his narrative, he mentions two initiatives which were undertaken at the school level and those include the idea of networking with other schools from abroad and the idea of developing business literacy in students.

As far as the current environment is concerned, Tana is aware of the idea of the changing world and points to the idea of technological development as a force behind the move. From his perspective, the setting of the current environment is associated with a different young generation which is characterized by bad behaviours and a challenging environment which appeals to the improvement of education.

Interview with Ubangi

Ubangi is a female teacher who works in a secondary Government-aided school located in a Rwandan rural area where she is a teacher of languages. By the time of the interview, she is in her late thirties with a teaching experience of more than 10 years. The interview with her took place in the second half of 2020 and Ubangi elaborated freely on her experience with changes in the Rwandan educational system.

In her narrative, she discusses some changes which affected the system including the change of the language of instruction from French to English, the introduction of the competency-based approach to teaching with associated learner-centred teaching methods and the focus on the development of competencies. She says that the new teaching approach is coupled with a new understanding of the role of teachers as they are currently regarded as facilitators, organizers and guides of the students learning as well as the friends of students. She sees a change in the shape of power balance where she mentions the idea of the loss of teachers' power in the school settings which she associates with the new trend of the increase of awareness of students' rights and freedom which they enjoy abusively to the extent of harassing their teachers. By the same token, she sees

the loss of power on the side of parents as well and, consequently, the latter give up some of their educational responsibilities.

Ubangi appreciates the idea of the availability of teaching-enabling facilities. Similarly, she likes changes which affect the teaching practices as they are driven by the desire to enhance the quality of learning. However, she finds that those changes are associated with intensive work on the side of teachers. She claims that the change of the instruction language came as a shock and, at the onset, it stood as a challenge to the learning since teachers were not prepared for it and were left to struggle on their own in the process. In a nutshell, she claims that changes which happen in the educational system are not well planned, they are frequent and not well-resourced and teachers are left on their own in the process of coping with them.

As far as school-based initiatives are concerned she mentions some of them like teachers working extra time to cover the curriculum, the idea of providing individual support to students in the framework of self-learning sessions and the monitoring of those sessions by the teachers.

Interview with Vaal

Vaal is a female teacher who works in a teacher training centre in a Rwandan semi-urban area. By the time of the interview, she is in her late forties with a teaching experience of more than 20 years. The interview with Vaal took place in the second half of 2020 and it was conducted by myself in a safe and quiet place. Being a teacher trainer with a variety of related responsibilities, she has an important experience with the educational changes in Rwanda which she wittingly shared.

Basically, she says that the Rwandan educational system has changed a lot especially since recently. In the course of the interview, she discusses some changes including the change of the teaching approach with the focus being currently put on learner-centred teaching methods. Similarly, she talks about the idea of the curriculum change which brought in the new trend of competency-based teaching. Moreover, she discusses the change of the language of instruction from French to English in general and, later in 2020, from Kinyarwanda to English in lower primary education. Additionally, she highlights the change in the quality of students as she finds the current youth different as they lack respect for their teachers.

Vaal appreciates and supports the idea of the change of curriculum. She has high expectations about the new curriculum which she finds

workable and full of guidance; therefore, she claims that lucky are students who will enjoy it when teachers will master it. Being a member of the curriculum development team, she claims that she does not have any difficulty when it comes to the implementation of the new curriculum. Correspondingly, she is appreciative of the idea of learner-centred teaching methods as, from her understanding, it is conducive to the enhancement of learning. However, she argues that efforts to fully involve students in their learning are thwarted by the lack of requisite competencies on the side of teachers. On another note, she finds the new methods being associated with a certain loss of students' respect in regard to their teachers. Talking about the idea of the change in the language of instruction, she claims that it came quickly without enough preparation and the readiness of teachers was very low.

In a nutshell, she finds the Rwandan educational system being marked by frequent top-down changes where teachers mainly play the role of change implementers. However, she acknowledges that the latter gave their input during the process of the curriculum change, especially for the new curriculum of TTCs. Vaal is aware of the changing nature of the current environment which is associated with new requirements in daily life and a different young generation. She claims that teachers need to respond to the changing environment by learning and refreshing their knowledge to cope with it and get full knowledge about the students they teach.

Interview with Volta

Volta is a male teacher who works in a Rwandan teacher training centre. By the time of the interview, he was in his early forties with an important teaching experience of more than 10 years. The interview with him took place in late 2020 and it was carried out by myself in a good atmosphere. The interviewee got enough room to willingly share his experience about changes in the Rwandan educational system.

Volta says that the Rwandan educational system has been characterized by frequent changes. He discusses some changes including the shift of the language of instruction from French to English and the open access to education as it was underpinned by the dissemination of schools' infrastructures and the idea of inclusion. Similarly, he mentions the change of curriculum, the change of the grading system in the process of assessment and the change of the textbooks supply system with the idea being

to involve locally based publishers in the process of the production and supply of the textbooks.

Volta appreciates the idea of the curriculum change as he says that the new curriculum is associated with the promotion of a sense of responsibility and cooperation among students. However, he finds a gap when it comes to how the new curriculum is understood by policy-makers, on the one side, and policy implementers, on the other side. He claims that teachers are not trained enough and, as a result, they show a gap in their understanding of the new curriculum. He argues that the idea of the curriculum change was initiated in response to the requirements of the current environment and he acknowledges that teachers played an important role in the whole process of curriculum design and development. He finds the new curriculum being thwarted by the status quo which he finds in the assessment and inspection systems. While the curriculum is claimed to focus on the development of competencies, he finds assessments especially the standardized ones being focused on the reproduction of knowledge. Regarding the shift of the language of instruction, he says that the change was associated with multiple challenges; however, it opened up new learning experiences for teachers.

Volta is aware of the changing nature of the current environment and he finds it associated with a challenging life where people need a variety of skills and competencies. He says that the current environment, with its requirements, challenges the quality of education being provided by the school system. From his perspective, the current environment requires skills and competencies which are beyond what the current school can offer. To this end, he advocates for educational quality betterment to make educational services more relevant to the youth.

Interview with Zambezi

Zambezi is a male teacher in a Government-aided school located in an urban area in Rwanda. By the time of the interview, he is in his mid-50s with a teaching experience of more than 25 years. The interview with him took place in early 2021 and it was the very last interview conducted in the framework of this research. It was conducted virtually on the ground of restrictions taken in a bid to contain the global pandemic. The interview took 41 minutes and Zambezi got a room to share willingly and freely his experience about changes in the Rwandan education system.

Basically, the interviewee is aware of the changing nature of the Rwandan education system. In his narrative, he discusses some changes including the shift of the language of instruction from French to English, the change of the curriculum, the reorganization of departments and specialization in general education with a focus being put on combining related subject matters. Similarly, he talks about the change he sees in the quality of students where he insists that the current youth, in general, and current students, in particular, are characterized by the lack of independent thinking as a result of their exposure to the internet.

Zambezi appreciates the idea of the change of curriculum as the new curriculum is designed in a way to help students to take ownership of their learning. However, he wishes it could be stable as he says that the curriculum and the language of instruction are two aspects which have been affected by frequent changes in the system. He claims that this situation leads to instability and it is a challenge to learning. He finds the idea of departments' reorganization being associated with limited learning on the side of students as they just focus on three core subject matters while they are denied opportunities to get other relevant skills and competencies from other fields. He appreciates the idea of the use of technology in schools; however, he finds the internet being a hindrance to the development of the student's critical thinking. Thusly, he expresses a wish of reducing the students' exposure to the internet to promote independent thinking and responsible working on the side of the students. Furthermore, Zambezi talks about the initiatives which are undertaken at the level of his school including the organization of students' self-learning with strict monitoring by teachers and the organization of the practice exams.

As far as the current environment is concerned, Zambezi says that it changes a lot and he identifies the latest technological development to be the force behind the move. He claims that the current environment is unsafe as it is littered with all kinds of sexual immorality, drug abuse and bad companionship. To cope with these situations, he says, the youth need to have proven competencies of critical thinking which they will get from schooling. Similarly, he uncovers that the challenging nature of the current environment makes it difficult for parents to get involved in the education of their children as they are always busy with activities and projects likely to ensure the maintenance of their lives amid the challenges of daily life.

4.2 Results: A typology of the concept of change of teachers in Rwanda

This study started with a guiding research question “How do teachers perceive the change in schooling amid the current changing world?”. To find answers to this question, a qualitative approach was adopted (chapter 3.1) and data were collected through semi-structured interviews (chapter 3.2). To this end, 30 teachers from different secondary schools and a variety of educational backgrounds shared their experiences with change in education through interviews (chapter 3.2.1). The portraits of interviews which are displayed above give an account of the individual experiences with the change as perceived by interviewed teachers. The work on data was done through the processes of inductive and deductive reasoning (chapter 3.5.1) and finally, abductive reasoning helped to give shape to the whole materials for a better analysis (chapter 3.5.2).

In this chapter now, the results of the data generalization to types by the process of abduction are presented. For the abduction process, it was first necessary to emerge criteria of comparison between the interviews (chapter 4.2.1). Six criteria developed by the data: the aim and purpose of change; aspects of the educational system which are affected by change; perceived aspects of the change management, perceptions of teachers’ position in schools, teachers’ relation with change and challenges identified. By looking at those criteria, the data and the research questions, three ideal types of teachers’ perceptions of change in schooling were generated (chapter 4.2.2).

4.2.1 Criteria of comparison

The grouping of the field data, discussed and controlled by an interpretation group, developed six criteria of comparison in the data: the aim and purpose of the change, aspects of the education system which were affected by changes, perceived aspects of the change management, perceptions of teachers’ position in schools, teachers’ relation with change and challenges. The following paragraphs give an account of those aspects as they were shared by the interviewees.

Aim and purpose of change:

By sharing their experiences with changes, interviewees have addressed the aims or purpose of change. With this criteria, the perceived motive(s) behind the change in schools is captured.

“basing on the current changing nature of the world there is a need to promote the use of ICT yeah ICT all those changes were introduced to equip the youth with requisite skills for their global adaptation and potential competition in the global labour market” (Sanaga 172-176).

This interview excerpt shows the purpose of the change as perceived by Sanaga. For him, changes are initiated as responses to the requirements of the changing world.

Of course, different interviewed teachers have different opinions about the aim(s) of changes; so this criterion will be -as all the following criteria – filled differently, according to the meanings of the interviewed persons.

Aspects of the educational system affected:

The education system is a broad, complex, and multi-layered field. By reading the data, it was developed that many teachers talk about many changes happening in the system and specific changes targeted specific aspects of the system. Therefore, the grouping of data helped to identify those specific aspects of the system which, from the perspectives of interviewees, were targeted and affected by the change. From teachers' points of view, some changes are planned to target specific aspects. For instance, the teacher Ruvuma highlights the change which affected the assessment system:

“let me tell you that since last year there was a change in how exams are organized the end-of-year exams are prepared by the Ministry of education nationwide but that was not the case before every teacher was responsible for teaching his/her classes and he/she was responsible for assessment and marking” (Ruvuma interview 151-155).

The interviewed teacher narrates his experience with the change in the assessment system. He shares how the change led to the standardization of the assessment organization over time. Teachers address several aspects which have been touched by the changes as it is visible in the later stages of the development of this chapter.

Perceived aspects of the change management:

Different aspects of change management which were raised by teachers while sharing their experiences with change are grouped under this criterion. Two striking aspects emerged from the data. First teachers elaborated on perceived forces driving change in schooling. The following excerpt of the interview is telling as it expresses the driver of the change from the view of the interviewee.

“but we have to accept that changes are necessary and they happen in due time I mean changes happen because time requires things to change look for instance the current time is driven by technological development automatically the current time calls upon the change in education to help students adapt to the requirements of this specific time” (Shangani 406-410).

The teacher Shangani sees the change as a necessity. From his point of view, the current time is shaped by the advancement of technology. It is associated with new requirements which necessitate the change in education provision to prepare the youth for their adaptation to the current setting. Further aspects which are perceived to be drivers of the change are disclosed as the chapter unfolds.

Second, interviewees discussed the idea of communication and change acquisition strategies on the side of teachers. The interview with Tana is eloquent in that respect.

“we had so many changes happening in teaching ehhe even if you look at... I mean they continue to change things like today you are teaching in this way and tomorrow they come and tell you “things have changed you have to teach in this way” and later they come back and tell you “there is a change you have to teach like this like that” so those frequent changes I mean those changes which keep on coming in ehhe changes which come from above I am somehow puzzled but I don’t know if they come from decision makers actually I don’t know how to say it anyway those iterative changes like you are teaching in a way you are implementing some principles of general pedagogy and tomorrow they come they tell you “you have to change because we start implementing CBC and with CBC you have to teach in this way” and some days later they come with another approach of teaching you know definitely this will have impact on students learning and you cannot expect good results from students whom you are teaching in that changing environment because you cannot expect good result from a system which is not stable” (Tana 219-241).

The interviewed teacher shares his frustration with the idea of frequent changes and how they are channelled to teachers for implementation. He sees a one-way top-down communication of the change where teachers

are recipients of the change. He is not satisfied with this managerial situation and it makes him look pessimistic about the results of the change. Of course, other interviewed teachers share similar or different perspectives as is visible in the later developments of this chapter

Perceptions of teachers' position in schools:

Different perceptions of teachers' position in schools came out of the data as well. This has to do with teachers' self-understanding in regard to their position in the school setting amid the current context of changes (changing education system and changing world). For instance, Ubangi sees a loss of power on the side of teachers as illustrated in the following.

“actually the situation is like the elder generation I mean the parents and teachers currently look powerless in front of the youth they cannot correct them because of fear of consequences the kind of children we have are those who make their own decisions and say like “this is not good this is not fair so I have to do like this like that” but there is no longer correction coming from parents and teachers since their power has gone diminishing over time their correcting and punishing power is literally behind them” (Ubangi 232-239).

The interviewee perceives a change in regard to power balance not only in the class setting but in society at large. Elder generation and teachers look powerless in front of the young one including students as the latter enjoy their autonomy and can make responsible decisions and take actions without any special consideration of the reaction of their parents and teachers. In tune with this view, Tana (273-278) argues that students have become bosses while teachers are now in a very low position in school and class settings. While there is wide agreement on the idea of the reduction of teachers' power in the class, among interviewees; the way they look at this shift of power balance differs from teacher to teacher as revealed later in this chapter.

Teachers' relation with the change:

This criterion encompasses two sub-criteria. On the one hand, interviewed teachers disclose their reactions to change in schooling where aspects of their attitudes, roles and commitments to change as well as their change are obvious in their narratives. On the other hand, a sub-criterion referred to as teachers' relation with the changing world emerged from

data as well. It has something to do with teachers' understanding of the current changing environment and how they relate to it.

Regarding the reactions of teachers to the change in schooling, the following citation exemplifies the appreciation that the teacher expresses about the new curriculum.

"but we ended up finding out that even students have knowledge so changing our practice in line with this understanding was not an easy task for us but we finally found out that the new approach was associated with further critical competencies including critical thinking decision making and the like we liked the change and while implementing the new curriculum we found out that when learners get latitude to share their ideas even teachers can learner from them therefore we appreciated the new approach to teaching it leads to effective teaching" (Sanaga 210-216).

The interviewee claims that his relation with the change evolved over time from reluctance to excitement and enthusiastic acceptance. Of course, all teachers are not excited about the change, different teachers shared different individual experiences as discussed in the next stages of this chapter. Similarly, the teachers narrated their experiences when it comes to perceived role in the change as well as their engagement with the change.

Concerning the teachers' relation with the changing world, interviewees entertain different perspectives. For instance, Awash holds a pessimistic view as it is made visible in the following excerpt from her interview.

"Yeah! If I look at the future ...hmmmm I see that the life will not be easy because there will be ...hmmm a big gap or let me say a difference between people with low income and the ones with high income and I can say that the latter will manage to earn their life but the former it will be really a problem for them to manage however there is a hope since the Government has a good plan for the future we never know maybe there will come a policy which will support the youth to manage their life but frankly speaking if I look at the future I find out that it will not be easy to manage" (Awash 129-134).

The teacher is uncertain about the future; she expresses her hopelessness and she does not suggest any solution to the problem she sees. Rather she relies on the Government's efforts to find the breakthrough. The relation with the changing world varies from one teacher to another. Besides the identified pessimism, other teachers express their appreciation and optimism in regard to the current dynamicity of the world as described later in this chapter (chapter 4.2.2.3).

Challenges:

Basically, the perceived challenges to the change proved to be so many, but efforts have been made to consolidate them under specific aspects which were commonly revealed by interviewees. For instance, Vaal situates the challenges on the side of teachers as is visible in the following excerpt of the interview.

“but for students to play such role in their learning they need to have a competent teacher who has a good command of the content to be learnt and a teacher who can organize the class in a way to help students take on their active responsibilities in their learning and this is a challenge as ... I come back to something I mentioned before actually teachers are... well school textbooks are available and we have a nice curriculum which appeals for students to take on responsibilities in their learning but teachers are yet to learn how to hand those particular responsibilities over to students they don't know how to organize the teaching in a way to help students be responsible for their learning” (Vaal 137-146).

The interviewee shares her experience with the change of the curriculum. She claims that the new curriculum is associated with a change in the teaching methods. There is an emphasis on the implementation of learner-centred teaching. However, the interviewee sees a gap on the side of the teachers as they lack the competencies and skills to organize their classes in line with that approach. Of course, other teachers see challenges coming from elsewhere as is disclosed later in the chapter.

It is worth underling that the criteria described above emerged from data and they lay the basis for comparison of field data as collected through semi-structured interviews. They contribute to the generation of the types, characterize different types where every type describes the quality of teachers' understanding of the change

On a very practical level, the iterative activity of data management led to three ideal types of teachers' understanding of change in schools. The abductive process was done in three main stages. Firstly, the reference was done to the overall aim of the study which consists of investigating the perceptions of teachers on change in schooling. Secondly, the research questions were taken into consideration and thirdly a deep reflection focussed on data collected from the field. To this end, data were brought together, grouped, compared and deeply scanned. Data were coded using the MAXQDA software (chapter 3.4.3) and consequently, the coding system, codes and coded segment played a significant role in the process of abduction. The intersubjectivity was achieved through double coding and

the work of the interpretation group which supported the activity of assigning meanings to the data.

Ultimately, the reflection of the data coupled with the consideration of the emerged criteria gave rise to three ideal types when it comes to teachers' understanding of the change in schooling. First, each type was carefully reflected, by using quotes and coding. Secondly, I tried to compose types, reflected by communicative validation. Then, after having composed each type, types had been named.

The first ideal type was called 'Instrumental understanding of change as policies-oriented for a stable society'. The second one was termed 'Vaccinating understanding of change as context adaptation-oriented for integration into the global world' and the third one was named 'Functional understanding of change as human capital investment-oriented for a knowledge society'. Every title of the type embodies in it the ideas of how teachers perceive the purpose of change, especially in terms of cause (forces driving change or what makes teachers change), vision and mechanisms of the change.

Table 1: Presentation of criteria and types as they emerged from data

 Types			Instrumental understanding of change as policies-oriented for a stable society	Vacillating understanding of change as context adaptation-oriented for integration into the global world	Functional understanding of change as human capital investment-oriented for a knowledge society
Criteria	Sub-criteria				
Aim/ Purpose of change					
Aspects of the educational system affected					
Perceived aspects of change management	Forces driving change				
	Communication &acquisition strategies				
Perceptions of teachers' position in schools					
Teachers' relation with the change	Teachers' reaction to change in schooling	Teachers' attitudes to change			
		Teachers' role in change			
		Commitment to change			
		Teachers change			
	Teachers' relation with changing environment				
Challenges					

Source: Primary research data

4.2.2 Description of generated types

In the following chapter, every generated ideal type is described by referring to the identified criteria. Types are described in an ascending way when it comes to their potential to foster educational quality betterment.

4.2.2.1 Instrumental understanding of change as policies-oriented for a stable society

The type of instrumental understanding of change as policies-oriented for a stable society represents a technical or mechanical understanding of change. Change is undertaken by top decision-makers to fulfil the official government policies aiming to ensure a stable society. Interviewees see a vertical top-down flow of change, where the role of teachers is limited to mere change execution. The details about this understanding of change are explained in the following paragraphs by taking reference to identified criteria. Facets of the cases Awash, Bandama, Casamance, Dawe, Kunene, Kwango, Mania, Molopo, Mono, Oba, Okavango, Pungwe, Sanaga, Sankuru, Shangani, Songwe, Tana, Vaal and Zambezi are related to this type.

Aim: Educational change for the fulfilment of official policies

The instrumental understanding of change as policies-oriented is shaped by the perception that changes happening in the education system are driven by the national transformational agenda. Teachers tend to link every change to a specific official policy undertaken by the government.

While sharing his experience with changes in schooling, Tana underlined how they have always been undertaken in line with the government's socio-economic development agenda.

“Well the educational developments have always gone in line with overall national development programs I mean changes happened in the education system based on changes which happened in society in general I remember there was a change of subjects matters which were taught in classes similarly there was a change of combinations you know so many changes happened in education in line with developments which were going on in the society” (Tana 17-24).

The statement shows how the teacher links the changes in schooling to changes happening in society. The interviewed teachers refer to programs which were undertaken in the process of national reconstruction, especially in the aftermath of the 1994 Genocide perpetrated against the Tutsi.

To this end, another teacher Sanaga (133-142) argues that education was given a central role in the whole process of reconstruction. Teachers recognize that education is considered to be a cornerstone of Vision 2020¹³ (Dawa 199-202; Kunene 291-292). They assume that educational changes were undertaken in response to the requirements of the government's vision of socio-economic transformation (Songwe11-12). Consequently, teachers see the role of education in three dimensions which provide evidence for the rationale behind the change.

First, they assume that education was changed because it was considered to be a force to rely on for economic development. The following statement from Casamance is eloquent in that regard.

“in the former period people had only access to primary education currently the access has been broadened up to the completion of secondary education in this regard the country will get more educated people who can reflect and come up with ideas likely to help achieve national economic development for sure education is key to the development” (Casamance 215-220).

The interviewee refers to the change in terms of access to education which he finds currently more expanded than in the former period. He assumes that, with this open access to education, citizens will get skills and competencies which will help to take society to the next level in terms of economic development. This view is held by other teachers including Shangani (125-130), who claims that the current education does not train students to become job seekers as it has always been the case in the former time; rather it helps them to acquire relevant knowledge and develop competencies requisite for their personal development and national economic growth. Similarly, Bandama (319-322) believes that the newly introduced curriculum has the potential to boost national economic development. For this type, there is a belief that education has the responsibility to change the quality of the population to achieve economic transformation coveted by the Government of Rwanda and enacted through prioritised policies (Shangani 398-402; Bandama 158-161).

Second, teachers claim that education was changed because it was expected to play a central role in the social transformation to achieve national unity and reconciliation. Bandama holds the view that bad education sank the country into the darkness associated with the 1994 national

¹³ Vision 2020 is a national transformational agenda established in 2000 through consultations and reflections. It showed the type of the country which Rwandans wanted to have – united, democratic, inclusive and prosperous- by 2020 (Republic of Rwanda 2012)

wreckage. By the same token, it is considered as a cornerstone to be relied on in the national reconstruction project.

“If you look at the genocide perpetrated against Tutsi for instance you find out that it is somehow linked to the lack of education of course there are some educated people who got involved in the genocide it depends on the education system which was there but in this time the education system we have now efforts are being made to teach people about Rwandan values the genuine Rwandan history the purpose behind those efforts there is currently a slogan we use in different campaigns where we say that we want to build our country Rwanda in line with our aspirations so there is a need to prepare people who can understand that move and who will help the society to reach that target” (Bandama 195-202).

The teacher believes that the 1994 Genocide was enhanced by the lack of education. From his point of view, people participated in the Genocide either because they were uneducated or they got a poor education. He understands that the lack of education, on the one side, and its poor quality, on the other side, played a significant role in the process of national destruction. Teachers of this type see a different type of education emerging through change, fixing the failure associated with the previous system and contributing to the national reconstruction. This view is held by Sanaga (140-142) when he argues that, over time, decision-makers realized that the role of education could not be ignored in all efforts undertaken in the framework of the national reconstruction. Other interviewees go as far in their thinking as to suggest that the idea of perpetual changes in Rwanda is motivated by the desire to find a fitting Rwandan system. The claim is that change initiators are always in search of a system which is expected to fit national aspirations as has been highlighted by Kwango:

“they bring a system today tomorrow they find out that it has its shortcomings and they change again and so on we did not yet get an educational system which we can say about it “Yes we got it this is now fine for Rwandans” (Kwango 291-294).

The same idea of searching for a fitting system is shared by Kunene (291-293), as well, when she says that decision makers take their thoughts ahead in the future, check their minds to see what the future will look like and try to figure out a specific fitting educational system for the future.

Third, teachers associate change with the desire for economic integration as is felt by the Rwandan Government. That view was shared by Songwe as highlighted in the following:

“Others were motivated by the desire to align our practices with those prevailing in the sub-region like you know currently Rwanda is a member of the East African Community so there was a need to synchronize and adjust individual educational systems to make them look more or less alike all of this was mainly undertaken

in response to the Government's vision (5 seconds) that is just my understanding" (Songwe 12-17).

From his perspective, changes have been undertaken to align the practices with those in other countries of the East African sub-region. The same view was shared by other interviewed teachers who underline the ideas of broadening the openness of Rwandan people to regional and global labour markets (Bandama 178-185; Sanaga 164-172). For instance, teachers see changes like the shift of the language of instruction from French to English among others in that perspective (Sanaga 164-172; Bandama 341-353).

Additionally, teachers say that educational changes have been undertaken to emulate other educational systems. The following utterance from Sanaga shows this understanding:

"moreover there came a move where a need was felt to compare ourselves to other educational systems in the world the point being to learn from them as the saying goes "Akanyoni katagurutse ntikamenya iyo bweze" (literally meaning when a bird does not fly to other places when it stays at the same place it does not know where the yeast is being reaped) I mean in the framework of international interactions they (decision makers) were able to learn how things are done in other countries how the Ugandans are working to make their country move forward how France USA Netherlands Germany are doing what to learn from them so I am sure that is another aspect which helped... I want to say that there was an attempt to make comparisons and learn from experiences from other contexts" (Sanaga 142-150).

From this citation, the teacher sees Rwanda as a member of the global community, as a result, there are interactions always going on with other countries. He assumes that the educational system keeps emulating other educational systems from other contexts for the sake of comparability to find points of reference and learn from their experiences. To this end, the interviewee claims that some aspects like inclusive education were learnt and introduced into the national educational system in the shape of best practices learnt from other contexts (Sanaga 155-164).

In short, the ideal type of *instrumental understanding of change as policies-oriented* considers the fulfilment of official policies to be the main reason behind the change in schooling. There is a perception that changes have been initiated in the framework of the endeavours undertaken to achieve a number of programs including national reconstruction, economic development, regional and international integration which were initiated to achieve the national socio-economic transformation agenda.

The Nature of change: Access, structural and language change

The ideal type of *instrumental understanding of change as policies-oriented* focuses on ideas of opening access, structural reorganization, and shift of language as the main changes which have happened in the school system. First, there is an acknowledgement of efforts thus far made to expand access to education. While sharing his experience, Volta did not hide his appreciation towards this move:

“There was a move of education for all which was introduced in the 2000s I call it a change and a significant one as it helped to open access to education and many people got opportunities to be schooled as education was open to everybody” (Volta 140-142).

According to the interviewed teacher, the idea of open access to education came as a significant change which reversed the previous existing trend before the 2000s. This proved to be a common understanding among interviewed teachers (Bandama 90-92; Ruvubu 58-59). They revealed that the betterment of access to education has been enacted through some programs like the dissemination of school infrastructures (Shangani 46-49; Kwango 23-24; Awash 165-170; Akagera 153-157) and reducing distances covered by students on the way to/from school by helping them to attend schools in their vicinity (Shangani 423-429; Sanaga 66-67; Kwango 151-159). Teachers argue that the main challenge faced by decision-makers was related to the shortage of secondary education schools because the latter were exponentially outnumbered by the primary schools. That status, they say, proved to be a problem for the transition from primary to secondary education. Therefore, the idea of transformation of every primary school into a complex encompassing both educational levels was adopted (Kwango 273-278) and it was supplemented by the establishment of and focus on day secondary schools (Shangani 199-204).

Teachers shared their concerns about the idea of students attending schools in their neighbourhood. From their perspectives, that development ignores the principle of consideration of students' interests during their placement in secondary education because they are obliged to study subjects which are available in nearby schools (Casamance 439-444). Interviewees understand that the idea of school infrastructure dissemination proved to be insufficient because of the imbalance between education demand and supply. Consequently, they say, the class organization was revisited to adopt the system of double shift as a mitigating strategy in primary education to optimize the use of available infrastructures (Dawa

192-197). Another program which, from teachers' points of view, helped to ensure the openness to education is the idea of compulsory and free education enacted through the introduction of the policy of 9 & 12 YBE (Sanaga 62-67; Casamance 188-191; Awash 48-52) coupled with the public awareness campaigns where people were sensitized to the benefits of education (Ruvubu 94-99). Moreover, it's learnt from interviews that the idea of open access to education was backed up by other initiatives including the consideration of gender balance in admissions (Kwango 269-272) and the provision of additional support to students coming from vulnerable family backgrounds (Akagera, 153-157). Furthermore, teachers disclosed that the access to education was expanded enough to reach out to formerly marginalized groups like disabled people and slow learners to achieve the target of inclusion (Volta 21-27; Sanaga 155-164; Bandama 86-92; Ruvuma 146-151).

Second, teachers shared their experiences with other changes which were introduced in the shape of structural reorganization and teacher's management system. The Ministry of education has affiliated semi-autonomous bodies which are responsible for the coordination of education at different levels. Teachers have noticed frequent changes at that level where Rwanda Polytechnic (RP) was created to supplement the work of the Workforce Development Authority (WDA) when it comes to TVET coordination (Mania 22-25). Similarly, the Rwanda Educational Board (REB), which was basically in charge of general education, has taken over from the Kigali Institute of Education (KIE) the responsibility to coordinate teachers' training (Kunene 71-77). While addressing the structural change, Mania claims that teachers don't have a clear understanding of the responsibilities which are held by each of those semi-autonomous bodies as they keep shifting from one to another via changes:

"Other changes are about the administrative organization you find like today we are working under Rwandan Education Board (REB) tomorrow we work under Workforce Development Authority (WDA) and later comes Rwanda Polytechnic (RP) I don't want to delay on this but there is a disorder and there are problems in those changes because ..." (Mania 342-346).

The interviewee talks about changes affecting the coordination of education at the central level. He finds the change being associated with challenges as teachers get confused and do not have a clear understanding as to whom to report to.

As far as teachers' management is concerned, interviewees notice a significant change which came in three stages. First, there came the idea

of test-based recruitment where teachers have to sit for a test to get a job. In the following statement, Casamance appreciates that move and sees it as a way forward towards the recruitment of competent teachers:

“I can also say the change in teachers’ recruitment currently strategies have been taken to recruit competent staff currently if you want to be a teacher or a head teacher of a school you have to sit for a test and in that regard someone gets the job deservedly that is something I appreciate a lot because in the former period people used to use bribery and corruption in order to get jobs in education” (Casamance 195-200).

From the perspective of the interviewee, the new move was undertaken for the sake of justice, fairness, and quality assurance. When teachers take an exam for their job, the expectation is that competent teachers will succeed. Therefore, the teacher thinks that the new system came to rectify the problems experienced in the former time. He understands that, in the former system, the policy teachers’ recruitment was not fair; as the practice was reportedly characterized by corruption and bribery. Interviewed teachers used the opportunity to elaborate on the development of that change. The re-organisation started with the decentralization of teachers’ recruitment as job tests were organized by the district (Shangani 70-79). Later on, the coordination became centralized as it was taken over by REB on account of rectifying identified shortcomings (Nile 160-164). Additionally, teachers addressed other changes which happened including accountability through the Imihigo performances contracts system¹⁴ (Sanaga 820-822), tight inspection and monitoring of teachers (Molopo 80-83); teaching professionalization where a special focus was put on teachers’ qualification (Ruvubu 139-142; Molopo 178-182) coupled with a plan to dismiss the unqualified teachers (Okavango 129-130; Mono308-316).

Third, teachers shared their experiences with another fundamental change, the shift of the language of instruction. While sharing his experience with this shift, Zambezi shows that it was not a one-off change.

¹⁴ Following the 1994 Genocide, the Rwandan Government had to find a way to move on from the devastation by implementing policies that would stimulate development and improve service delivery. Imihigo performance contracts in a traditional practice which was adopted in order to hold officials accountable by setting and thriving to achieve goals called Imihigo (World Bank, 2016).

"There were changes in terms of instruction language where Kinyarwanda and French were used as medium of teaching and exams papers were set in both languages then they shifted to Kinyarwanda I remember there was a time again when both Kinyarwanda and French were used as languages of instruction in lower secondary education if I am not mistaken then after the bilingual system was given up and they shifted to English which is still our language of teaching up to now" (Zambezi 180-185).

According to the statement of the interviewees, the language of instruction has been changed more than once (Zambezi 180-185; Okavango 56-59). They refer to changes of language in different periods. They mention the time when French was used as a medium of instruction (Ubangi 19-24; Songwe 53-55; Shangani 130-133; Nile 154-156), later English was introduced as a second language of instruction especially in secondary and tertiary education (Ubangi 19-24) while Kinyarwanda was used in primary education, and then since 2009, English thoroughly replaced French as a medium of teaching from upper primary to the higher levels of educational system while Kinyarwanda remained in lower primary education (Songwe 53-55; Sanaga 516-517; Shangani 193-196; Ruvubu 132-136; Ruvuma 126-130; Kwango 402-403; Dawa 16-17; Ubangi 331-332; Zambezi 192-197). The latest change in the language of instruction was undertaken in 2020 when a decision was made to use English as the single language of instruction in the whole system including the lower primary education (Molopo 47-49; Vaal 86-100). Teachers show a variety of opinions about the change of the language of instruction. Some find it as a challenge to teaching and learning as it requires intensive adaptations on the side of teachers, students and materials (Zambezi 192-197; Oba 75-79) while others look at it through different lenses. They focus on opportunities which came along with the change, especially for the youth (Bandama 341-353). When discussing the reason for the change of language, some teachers associate it with political reasons (Shangani 193-196), while others find it to be motivated by economic reasons of a global world (Bandama 341-348).

Additionally, teachers share their experiences with other changes, in this perspective of educational reorganization, including change of the school calendar from September/July to January/October (Sanaga 512-515; Nile 151-154; Kwango 256-258; Casamance 183-186), the reorganization of teaching subjects (Zambezi 208-213; Mania 9-15; Lualaba 166-171), the students' automatic promotion (Sankuru 51-58; Dawa 50-53; Casamance 366-368; Bandama 104-111), the system of supply of textbooks (Volta 345-349), and the idea of school feeding (Casamance 238-242; Oba

97-99; Songwe 58-61). A significant consideration of pre-primary education (Vaal 366-371) and the promotion of vocational and professional education are reported as well (Bandama 255-260). Finally, teachers address the transition from secondary to tertiary education. Bandama complains about how weights are given to futile criteria when awarding scholarships to students who apply for admission to the state university.

“You will find a student who completes successfully his/her secondary studies in sciences they are smart enough and they get good results in national examinations but they are not able to continue with higher studies because they are hindered by the so-called Ubudehe categories¹⁵ of their parents (categorization of people according to their income status) you know this happens... you find someone who gets 60 out of 73 and he/she misses the opportunity to go on with higher studies while the one who gets 30 out of 73 is admitted to a higher educational level that is a problem isn't it?” (Bandama 498-508).

The teacher deplores the idea of not giving due credit to academic performances while awarding scholarships in state higher learning institutions. He is joined by Casamance (102-110) who sees this practice as a challenge to education since the major consideration is given to the ideas of gender and Ubudehe categorization at the expense of students' academic performances. He says that society will experience consequences of that situation in the far future when there will be a felt gap of competent professionals owing to the current selection and admission practices (Casamance 106-110).

In brief, the ideal type of *instrumental understanding of change as policies-oriented for a stable society* highlights changes which happened in the educational system. The type considers that the most significant aspects which were affected by the change include access, educational structures, the language of instruction, the organization of teaching subjects, the school calendar, repetition and promotion regulations and the awarding of higher learning scholarships.

¹⁵ Ubudehe is a long-standing Rwandan practices and cultural value of working together to solve problems though a system of mutual assistance which was adopted by the Government in 2000 as a part of the strategies to address poverty reduction (Rutikanga 2020; p. 62). Currently Ubudehe can be understood as socio-economic stratification system in which poor Rwandans are supported via social protection scheme. As a matter of fact, Rwandans have been classified under four categories the first category designated for poorest people while the fourth category is for the wealthiest members of the society (Bizimungu 2020)

Perceived aspects of change management: Implementation of prescribed top-down change

The type of *instrumental understanding of change as policies-oriented* underlines the top-down nature of changes happening in the system of education. Changes are initiated by decision makers while the role of teachers is limited to change implementation. While addressing change management, Shangani explains that change initiatives are undertaken at the central level and teachers can't help but adapt their teaching practices.

"The Government sets the educational policies and we adapt our teaching practices accordingly you know for instance we had French as a medium of instruction and the time came when we were told to shift to English" (Shangani 130-133).

The interviewed teacher sees the central role played by the government in setting educational policies. Similarly, he sees a mighty hand of the government in the change process where he points to the shift of the language of instruction as a matter of illustration. The same view was shared by his colleagues who explain that changes happening in the educational system are initiated by top decision-makers from the central level (Molopo 45-47; Dawa 327-328; Awash 153-155). In the same vein, interviewed teachers address the idea of communication in the change. They reveal that the communication of initiated changes land to them in the shape of instructions (Sankuru 23-25; 28-30; Bandama 104-107; Dawa 50-53), guidelines and recommendations to be followed (Sankuru 138-142). Some teachers don't hesitate to share that changes are prescribed as laws to comply with (Sanaga 526-529; Songwe 278-287). They see one-way communication in the change process. That understanding becomes visible in their narratives. "We are told to change" (Ubangi 298-300; Songwe 87-91; Sanaga 529-532; Bandama 105-107; Molopo 120-124) or, "they tell us" (Tana 219-241; Sankuru 276-277; Sanaga 228-231).

"They tell us that there is a new program coming in" (Sanaga 228-231); [...] "we were told to give up the habit of preparing the summary of content to give to students the idea being to give a room to students to do research on internet" (Sanaga 530-532); [...] they tell us to make use of ICT in teaching" (Awash 208-209); [...] "those changes affected the teaching/learning process like today they come and they tell you (...) we have to shift from KBC to CBC the CBC is coming" (Molopo 167-169).

The statements show that even for critical and complex changes like the change of approach to teaching or the use of ICT in schools, the communication reportedly remains the same. Teachers say that changes land on

them in the form of mere information to be executed. Additionally, teachers share their views in regard to the change time frame:

“They bring new ideas for change to be implemented in a very short period that is another issue” (Kunene 280-281).

As far as the timeframe is concerned, the interviewed teacher reveals that there is a sense of quickness in the change process. Other interviewed teachers share the same experiences. They see changes happening abruptly (Songwe 61-64) and teachers don't get enough time to learn about and adapt to change (Vaal 160-169). Teachers see the rule applying to all changes including the change of the language of instruction and the change of curriculum (Songwe 61-64).

From the interviewees' points of view, this manner of working has tremendous consequences including the limited understanding of change on the side of teachers (Kwango 234-238; Sankuru 33-38; Volta 280-283; Sanaga 882-892); teachers sticking with their old practices (Kafue 129-136) and other change-related complexities as expressed by Molopo in the following:

“In regard to secondary education I can tell you the experience with change let me say change about French the time came and we shifted the medium of instruction from French to English and we stopped teaching French later on the idea came again that we had to teach French once again as a subject now look for instance the first change came when a certain group of children were in P2 when the second change came in they were in senior 2 ... in between they did not study French at all now they are asked to resume learning it and... the challenge is on the side of teachers because they have to teach the content of senior two according to the curriculum yet the students did not learn the previous contents because they did not learn French in the period between both changes actually they are asked to crunch a hard piece because they have to learn something and they don't have prerequisites to it ... this means that the curriculum and books made available to them are just for a level which is not theirs the students are expected to learn the content designed for secondary education yet they did not get prerequisites in their primary education” (Molopo 54-67).

The teacher narrates his experiences with the change of the language of instruction and finds a gap in the process. From his understanding, the change was designed and communicated to teachers; however, the teacher finds the change not well connected to the students as their situation was not fully reflected in the change. From the interviewee's understanding, that particular situation has impacted not only the change success but the whole learning process as well (Molopo 64-76).

In a nutshell, this type recognizes the top-down nature of changes happening in the educational system. There is a sense that changes are

undertaken at the central level of the educational system and land to teachers as instructions to be quickly executed while they are not provided with sufficient time of learning about the change. Similarly, there is a claim that the communication of the change is done in a one-way hierarchical manner. Consequently, teachers find out that, in some regards, changes are not well connected to the realities on the implementation ground.

Teachers' position in school: Teachers' influence (comfort) zone invaded

When addressing the position of teachers in schools, the ideal type of *instrumental understanding of change as policies-oriented* emphasizes how they see their responsibilities being interfered with. They see a part of their power being taken away and they witness a kind of belittlement of their status in the society. The following statement from Oba highlights the reflections of teachers on that issue:

“You know teachers are deprived of the right to decide there are some decisions which teachers cannot make in their classes or their schools rather decisions are made by other people other leaders from outside of the school setting this is a challenge to the status of teachers in the eyes of students and students keep this consideration not only in the school setting but also in the large community” (Oba 260-264).

The interviewee is aware that teachers are entitled to decision-making power. He knows that they can make some independent decisions in school or class settings. However, he claims that they lost that decisional prerogative along the process of change in favour of third parties. The same view was shared by other teachers who identify two dimensions of that experienced loss. On the one hand, there is a claim that the State has taken the power back from teachers on the pretext of respect of children's rights (Ubangi 182-196). On the other hand, teachers see other people jumping in and making decisions on their behalf. Those decision-makers do not necessarily come from the hierarchy of the educational system, but rather from other fields (Songwe 411-421). Teachers see that situation as a challenge since it affects their position not only in class or school settings but in society as well (Oba 262-264). Teachers try to figure out the reason behind that situation. They associate it with the growing consideration of education as a key pillar of national development (Tana 31-35). Decision makers have high expectations on education in the economic and transformational agenda. Therefore, actors from all sectors have their eyes focused on the education system (Tana 27-35).

Teachers feel their comfort zone is being invaded by new teaching approaches as well. Mono expresses his appreciation of the teacher-centred approach to teaching as it was associated with a visible power of the teacher in the class setting which does not apply in the current situation.

“Moreover, the teacher was at the centre he/she was like the engine of the teaching and learning process he/she had all the power in the classroom and he/she could do all he/she wanted in the classroom as he/she pleased I think we have a number of people who did not go to school at that moment as a result of that particular school and class organization and they are now illiterate the teacher had all the power and he/she could make decisions in regard to the promotion and repetitions of students as he wished” (Mono 79-84).

By referring to a period before the change, the interviewed teacher expresses how things worked when teachers still had full decision-making power. He claims that they were at the centre of class activities; they were responsible for teaching, assessing and making decisions in regard to the promotion and repetition of students. Yet Vaal (131-138) sees a significant change, she claims, the teacher’s role and consideration in the class setting got diminished over time and she shares the meaning she assigns to that shift.

“Similarly we used to respect our teachers because their role in class was key to our learning actually I appreciated the teaching job on the account of the respect that teachers commanded in society and I can say that it was beyond respect rather there was an aspect of fear in it but today things have changed teachers are not expected to play a pivotal role in the class setting anymore the balance has shifted in this regard with students being expected to be more involved in their learning” (Vaal 131-138)

Talking from her learning time experience, the interviewee acknowledges the respect and consideration which teachers commanded in the former period and which, from her perspective, made the teaching job attractive. She found the whole situation being associated with the pivotal role that teachers had to play in class. Yet, she sees that role being reduced owing to the active participation of students in their learning and this, she says, affects the position of teachers in the class setting. Dawa (347-351) expresses the same concern in relation to the current regulation of students’ promotion and repetition in educational levels. He finds the new policy interfering with teachers’ self-reflected decisional power.

Teachers see their position being lowered also by looking at their wages as has been disclosed by Bandama in the following statement:

“Coming back to the issue of money if you move around here you will find people who say like someone saying: “with my income I can pay wages for three teachers”

frankly speaking it's sad to hear that you know when you hear that you feel (hmmmm) like you are not happy with that but why do people say that?" (Bandama 410-414).

The quoted interviewee points out the little wage of teachers, something which is well known not only by teachers but by the surrounding community as well. Teachers acknowledge that the country does not have enough resources (Shangani 506-514). However, they wish that something would be done to improve their treatment (Shangani 510-511). They acknowledge that social change has affected daily life in different respects; however, they deplore the fact that their wage did not keep pace (Tana 490-506; Ubangi 447-456). Interviewees go as far as to complain that teachers' salaries are the lowest of the salary scheme of all public servants (Vaal 269-276; Orange 208-212). They deplore the gap they find in the treatment of public workers especially when they compare themselves with their counterparts in other sectors (Okavango 178-185; Orange 208-212). Sanaga (898-912) sees society changing, but the salary of teachers being the only thing which remains constant in the current time.

Teachers keep questioning their status among other professionals and workers especially when they see that the salary they earn does not meet their basic needs (Ubangi 447-456; Vaal 269-276; Molopo 280-288; Sanaga 922-925). The situation worsens when teachers see their neighbours including farmers and other business persons mocking them by saying that they can pay two or three teachers from their income (Bandama 410-414). Moreover, teachers see their position as being discredited when they look at the system of awarding government scholarships for higher studies. They disapprove the idea of taking the best-performing students to other fields of studies like sciences and engineering while the least-performing ones are taken to colleges of education where they are trained to become teachers (Bandama 423-431).

Additionally, teachers consider the working environment and surrounding context as trivializing their position not only in the school setting but in the large society as well. They claim that they are currently overwhelmed by multiple dispensable tasks which they perform as parts of their responsibilities. They say that they spend too much time filling in a variety of teaching documents at the expense of genuine teaching (Sankuru 244-249; Shangani 105-109) and when they teach they are required to deal with a diversity of students in terms of family backgrounds (Mono 227-236; Sanaga 270-276) and students' learning pace (Ruvubu 36-43). From their perspectives, when all this work overload is coupled with

additional responsibilities like monitoring students' cleanliness among others, the learning gets endangered (Casamance 357-361).

Again, teachers find their position belittled by the context they work in. In their narratives, they mention the devaluation of education as they experience it in their daily work. Sanaga expresses in the following statement how this affects students' commitment to learning.

"Another issue which is serious as well hmmm our students are not motivated I mean they are not committed to learning they lost interest in studies because of unemployment they say like "why should I invest in studies while I will not get a job at the completion and my elder brothers and sisters at home they have completed their university studies but they are farming with parents it is better for me to start working in the farm early instead of wasting my time in studies" so for some students studying is a waste of time" (Sanaga 391-397).

The teacher sees the issue of unemployment as a challenge to education since young people lost their interest in studies on account that they will not get jobs after their studies. To them, the time invested in schooling is wasted. They look around and they see elder siblings who graduated from schools, but their socio-economic standing has not been positively affected by their studies. Bandama (287-293) adds that the current youth questions the necessity of going to school. Shangani (38-46) traces the root causes back to the aftermath of the 1994 Genocide where, he claims, students were certificates-driven, and careless when it came to learning and what mattered the most, for them, was the completion and certification regardless of the competences and skills acquired.

The idea of devaluation of education is not only on the side of students; rather, teachers see parents being disappointed by the studies of their children as well. The experience shared by Okavango gives an account of the challenges that teachers face when they reach out to students' families to inquire about observed absenteeism cases¹⁶.

"When we arrived in student's families we were challenged by parents some parents were explicit enough to tell us that we had to give peace to their children as they were helping them to take care of their daily business to earn their lives they said things like "I am selling these avocados that is my business so I keep my child at home because he/she has to help me in this business because we rely on

¹⁶ It is a common practice in Rwanda for teachers to do home visits in order to inquire about cases of students' absenteeism and drop-outs. They talk to parents of students and eventually they convince them to bring their kids back to school

it for our life and don't tell me about school as I know a lot of people who completed their education yet they are unemployed or some are selling avocados as I do" (Okavango 81-88).

The teacher states that some parents hold back their kids at home because they don't give credit to education. Instead of taking their children to school, they keep them at home to help them in their daily businesses. Some parents dare to say that their schooled children failed them as they did not get any return from the investments they made in their schooling (Awash 107-111).

To summarize, teachers find their position in school and society being devaluated in different respects. First, they see interference in their decision-making not only by people from the educational hierarchy but from other non-educational sectors as well, and by this, a decrease in their professional autonomy is reported. Second, they find some educational policies, new teaching approaches and other changes threatening their freedom to exercise their power and their prerogative in relation to students. Third, the environment in which the school operates is not favourable to the position of teachers as reflected in the school setting. Some students and parents look disappointed by the school system as the graduates don't get jobs after completion of their studies. Similarly, other students find the content they learn so boring that they don't find any relevant reason to continue learning (Bandama 272-278). As a result, students reportedly lose their interest in learning. The value of teaching decreases accordingly. Finally, teachers find their little salary adding insult to injury. They say that even surrounding people are aware of their little wage and some of their neighbours keep challenging them by reminding them how little they earn.

Teachers' relation with change

Through their narratives, interviewed teachers shared how they relate to change in two respects; first in respect of change in schooling and second, in relation to the changing environment.

Teachers' relation with change in schooling: Adaptation by compliance and resistance.

The collected data give a glimpse of three dimensions when it comes to teachers' perceptions of their relations to change in schooling. First,

teachers express their attitudes to change through their narratives. Second, they highlight their views when it comes to their role in the change process and finally, they elaborate on their commitment to change.

The ideal type of *instrumental understanding of change as policies-oriented* shows a variety of attitudes to change as shared by teachers.

The following statement from Sankuru exemplifies a denying perspective towards change:

"My experience with change ... ok ahhh in my teaching eh... I don't remember any significant change which happened all we had was just to put into practice the guidelines which we received" (Sankuru 160-162).

The interviewed teacher does not have much to share when it comes to her experience with changes in schooling. There is no change which impressed her mind. From her perspective, there is no initiative which deserves the credit to be called change. Rather, teachers get instructions where they are required to put into practice established guidelines. However, in her narratives, she elaborates on some initiatives which have been undertaken including the introduction of competency-based teaching among others (Sankuru 5-8) and the use of ICT in schools (Sankuru 184-192). Yet, those initiatives, however important they may be, don't fit in the qualities and representations she has of the idea of change. This attitude of trivializing change is common to other interviewed teachers including Kafue (119-126), among others, who says that the idea of open access to education is a strategy initiated by the government to keep the youth busy for a certain period.

Other teachers acknowledge that changes happen in the educational system; however, they find loopholes in their design and implementation roadmaps. While sharing his experience with change, Okavango, here below, points out that some change initiatives bring about confusion and disorder in the system.

"My experience with the Rwandan education system is (...) actually we have ahhh (...) we have (...) in the system we have some contradictory messages coming from the Ministry of education and those related specialized bodies which are in charge of overseeing education system the point is that they make a decision today and they change it the next day and this is a serious challenge to teachers learners and the whole system in general I give you an example to illustrate this there are changes which keep coming in regard to the language of instruction in lower primary education sometimes they teach in English then they go back to Kinyarwanda this situation gives rise to a disorder in the system" (Okavango 51-59).

The interviewee recognizes top-down changes which come from higher decision-makers. However, he finds contradictions in the change over

time. He argues that changes keep coming one after another but, in the end, he finds it odd that some messages in the process of change contradict one another. He finds this particularly in the change of the language of instruction especially in lower primary. But other interviewees shared the same experiences with regard to other changes including the restructuring of subject matters (Molopo 174-178), the change of assessment protocols (Lualaba 134-140); the review of teachers' management system (Okavango 133-140; Molopo 204-211; Ruvubu 139-145) and the coordination of education through various autonomous specialized bodies (Mania 346-362). Teachers see contradictions in the change process as a challenge to learners, teachers and the learning process (Okavango 51-56; Mania 358-362).

Additionally, teachers expressed their views in regard to the idea of frequent changes happening in the educational system:

"All I can tell you is that the Rwandan education or let me say the Rwandan education system keeps changing the system is not stable the situation is like we are working in a way today and the next day we change it for a new one" (Pungwe 39-41).

The interviewed teacher finds that the system changes a lot and that it lacks stability. The same view is held by other interviewees (Limpopo 250-256; Vaal 78-82; Ubangi 266-269; Pungwe 39-41; Tana 219-241; Songwe 130-135; Ngolo 31-32; Kunene 235-237; Molopo 119-125; Sanaga 546-550) and some suggest that whenever there is a reshuffle in the higher hierarchy, they expect changes to follow (Sankuru 16-20; Kafue 102-107; Zambezi 187-189). Other interviewed teachers share the same experiences of a lack of stability in regard to a number of specific changes including the change of curriculum (Volta 45-47; Lualaba 118-121; Oba 235-238; Ruvuma 130-133; Kunene 291-294; Zambezi 185-189; Limpopo 386-390), the change of the teaching methods (Tana 219-230; Molopo 46-47), the structural reorganization (Mania 342-346), the system of teachers' recruitment and management (Molopo 119-125), the change of the language of instruction (Okavango 56-59; Zambezi 179-185; Vaal 82-100; Ubangi 28-34; Molopo 47-49), the grading system (Volta 42-44), and the change in subject matters (Pungwe 44-50). Criticisms were voiced by interviewed teachers in regard to the lack of change enabling facilities (Bandama 464-467; Ruvubu 201-206; Sankuru 118-126) with the teachers being left on their own in some cases (Ubangi 428-438; Pungwe 242-247; Awash 247-252), undertaking ambitious changes (Sanaga 799-810; Tana 159-170; Ngolo 125-126; Okavango 209-214; Kwango 339-345; Orange 179-181)

which are quick (Kunene 275-281; Songwe 61-64) and do not take into consideration the realities of the context (Ruvubu 201-206; Tana 162-175; Sankuru 118-126; Sanaga 879-891); the lack of involvement of teachers in the change process where teachers consider themselves as bystanders and passive implementers (Dawa 302-304; Sanaga 69; Kafue 132-140; Orange 229-233; Kunene 239-243; Bandama 560-583; Casamance 344-351; Sanaga 228-236; Sankuru 23-25; 275-276; Songwe 297-302) and poor preparation of change (Limpopo 232-237; Molopo 56-64; Kunene 348-354; Orange 237-241; Oba 238-243; Lualaba 118-121; Sanaga 786-810).

Against this backdrop of these criticisms in regard to change in schooling, teachers articulate two main orientations which they take when it comes to change adoption.

First, teachers disclose that they opt for an attitude of adaptation by compliance. In the following quote, Songwe explains why he goes for such behaviour.

"As far as I am concerned I accept any change which comes my way as it comes do you know why I say this? Why can I bother myself about something which I cannot change? Whether you like it or you don't it's the same in that case I accept it as it is because I know that I can't change it" (Sankuru 132-135).

The teacher underlines that when change happens in the educational system, she does not bother herself by questioning it. She just makes an effort to adapt regardless of whether she is satisfied with it or not. Teachers of this type assume that whatever they do they can't change anything on initiated change (Sankuru 132-135). In addition, teachers say that they make efforts to adapt to change because they need to stay in their job; they don't want to be fired on account that they resist the initiated changes (Songwe 228-230).

Second, some interviewees reveal a clear resistance to change. This is openly revealed by Bandama in the following statement, however, he shows that the attitude is not his own, rather he finds it on the side of his colleagues.

"But if you look for instance at the current curriculum and you know it will be the first time for students to sit for national examinations prepared in the framework on this new curriculum but you find someone I mean a teacher saying: 'What is this curriculum all about? Me I have taught according to the former curriculum I did not change (he laughs) that means the change has taken place but the teacher did not implement it he/she has spent three years teaching according to the former curriculum'" (Bandama 591-597).

In the statement above, the teacher reports that there are still teachers who keep questioning the new curriculum and, they openly resist it, rather they continue to teach following the orientations and guidelines of the former curriculum. They pretend to have changed while they didn't as has been highlighted by Kafue (142-143). Similarly, teachers have more arguments which they put forward as a justification for their resistance to the change of curriculum. Some teachers qualify the new competency-based curriculum as a waste of time since they find organizing students in groups of work as time-consuming (Sankuru 33-38). Others find the new curriculum as a challenge to learning because it limits teachers' latitude to transmit knowledge to students as they are used to (Mono 79-81; Sankuru 35-38). Therefore, teachers claim that they need to get back their teaching responsibilities where they determine what students have to learn; they prepare it and they find a fitting way to impart it to students (Sankuru 259-268). The same resistance applies to the change of the language of instruction as it can be seen through the words of Shangani (195-198) when he claims that he continues using French as a medium of learning. Teachers of this type question the effectiveness of the change of the school calendar (Kwango 256-260), students' promotion protocols (Ruvubu 186-192; Bandama 95-104, Songwe 176-186) and scholarship awarding regulations (Bandama 497-508).

Teachers' relation with the changing environment: Pessimism and passivity

This type of *instrumental understanding of change as policies-oriented* shows that teachers are aware of the current changing environment and associated implications on daily life and youth. They perceive change and they see dangers associated with it. Consequently, they look cautious when it comes to the developments which are going on in the world. For instance, Sanaga finds the current environment challenging to the youth.

"Actually we are living in a corrupt environment let me say it like that please don't misread me this is not a case for the Rwandan society only it is not a case for our sub-region it is a global situation you feel like people are traumatized they are pessimistic they don't expect any good future due to a number of factors including the climate change wars conflicts poverty orphanage and the likes so you know so many happenings are taking place and the worst of it especially for the particular area where I am working we have the issue of drug abuse it is a serious issue yeah this is a rampant phenomenon and ahhh ... life is very challenging" (Sanaga 372-380).

The interviewed teacher finds the current global environment corrupt, and people feel the hardships associated with the prevailing situation. The teacher mentions ideas of climate change, wars, conflicts, poverty, orphanage and drug abuse as features of the current environment. That view is shared by other interviewed teachers who find the current environment to be unsafe, especially for the youth (Zambezi 139-146; Bandama 209-214; Limpopo 110-115). These Teachers see the youth as representing the hope of the future. However, they lose their hope and grow pessimistic when they see that young people are currently addicted to all kinds of drug abuse and sexual immorality instead of working hard to cope with the challenges of the current daily life (Bandama 210-215; Limpopo 110-115). From teachers' perspectives, there is a social and moral decay which is orchestrating the situation. Teachers of this type see a social and moral decay (Limpopo 110-115) and they associate it with ideas of technological development and interculturality which, from teachers' perspectives suppress cultural and moral values, as well as common taboos observed in the society (Limpopo 110-116).

From teachers' points of view, the current environment is not only unsafe, but it is challenging as well, as it has been highlighted by Shangani in the following statement.

"Basically all activities take place in society and our clients are members of the society so the picture I have of the current environment (5 seconds) yeah the current life environment is very challenging (laughs) yeah it is really challenging" (Shangani 323-325).

The teacher describes the current environment as a challenging one as daily life is based on the premises of competition and self-reliance (Shangani 326-330). Other interviewees join this perspective by pinpointing the scarcity of resources (Awash 116-126; Kwango 201-206), economic fluctuations (Awash 121-126; Tana 49-491), unemployment (Casamance 145-148; Volta 165-171); cybercrime (Casamance 148-150) and inequality associated with capitalism (Kafue 80-82). Consequently, they lost hope, and they look to the future with a pessimistic eye (Dawa 101-107).

Teachers claim in addition, that life is not easy for students' parents as they work hard to earn their lives and tackle the challenges of their daily life. Consequently, some of them have already dropped part of their educational responsibilities and this accounts for current students' underperformances (Zambezi 100-108; Akagera 64-69). From teachers' perspectives, students do not have opportunities to interact with their parents or elder generation anymore because the latter are very busy and this is a

huge loss on the side of the youth (Akagera 53-57; Sankuru 317-326; Bandama 220-225).

Additionally, teachers find the current life challenging because it is associated with new requirements. That is highlighted by Molopo by drawing a parallelism between the current and former periods.

“The current period has its own requirements which are different from the previous period because as I have already mentioned above we have a lot of developments going on at the current time I don’t know if development is the proper term to use because we have a tendency to call everything development” (Molopo 139-141).

The teacher reveals that the environment is changing, and new requirements are the result of the change. Teachers underline that new requirements need more efforts from all fronts (Orange 97-99) especially on the sides of parents and teachers respectively in terms of financial means (Akagera 113-116); knowledge and competencies (Kafue 51-54; Vaal 286-303; Oba 70-74).

Interviewed teachers were able to elaborate on the attitude they adopt in regard to the current reportedly unfavourable environment. The following statement from Awash highlights her expectations about the future.

“However there is hope since the Government has a good plan for the future we never know maybe there will come a policy which will support the youth to manage their life but frankly speaking if I look at the future I find out that it will not be easy to manage” (Awash 132-136).

The teacher is aware of the challenges which are inherent to the current changing environment. However, she looks forward to a policy which will be undertaken by the government to alleviate the prevailing status quo. For her, since the government is working on the matter and she keeps high expectations about the forthcoming solutions (81-83). Other teachers shared the same adoption of a passivity-based attitude, as well, where they rely on the government’s efforts to find a suitable breakthrough (Shangani 341-344) by finding a job for everyone (Dawa 109-114).

In a nutshell, this type of *instrumental understanding of change as policies-oriented* recognizes the changing nature of the Rwandan educational system. It shows that teachers resist or criticize the change. Teachers of this type make efforts to adapt to change just by compliance. Additionally, the type reveals an awareness of the current environment, on the side of teachers. They perceive the environment as challenging and full of new requirements, leading to pessimism and passivity on their side. They lost their hope about the future as they find society being at stake (Songwe

166-172; Ubangi 222-231) and they rely on the government's initiatives for the hope of any bright future for people (Shangani 431-344; Awash 81-83; Dawa 109-114).

Challenges to change

The ideal type of *instrumental understanding of change as policies-oriented* recognizes challenges which teachers find as hindrances to change in schooling. Addressing the issue of the shift of the language of instruction from French to English, Oba has been able to pinpoint a crucial challenge.

"To be frank with you we have teachers who are not able to teach in English the government has done a lot of efforts in that regard teachers have been trained but it's like they are not interested but there is a specific issue with that I mean the age of some teachers they are old and I think they are not in a position to learn new things" (Oba 152-156).

The interviewee acknowledges efforts made by the government to support teachers to cope with the shift of the language of instruction. However, those efforts have been held back by the age of some teachers. He claims that age matters when it comes to teachers' change. From his perspective, old teachers are not in a position to change as they find it difficult to learn new things. By the same token, Kafue (45-50) raises another critical concern. She underlines that teachers who have been teaching before the change, find it difficult to adapt as they continue to scan the new practices through the lenses of the former ones. Some teachers dare to say that only time will bring the solution to age-related challenges since the time will come when all those elder teachers will retire and they will be replaced by a new generation of teachers who will have grown in the period of change with a different mindset (Limpopo 277-282; Kunene 126-136).

Moreover, teachers disclose that teaching in line with the new curriculum is very demanding in terms of time especially when it comes to mandatory lesson planning. Again, they claim that they are hindered when their efforts are invested in other duties which are claimed to be part of their job (Kafue 199-205; Pungwe 210-228). Teachers deplore that they are currently required to keep and fill in nine teaching documents daily and they find it as a challenge to teaching (Kafue 205-213). Furthermore, the ideas of poor coordination of the implementation of the change with associated contradictory messages (Mania 346-362; Okavango 51-59; Lualaba 134-140;) and the setting of national exams which impose pressure on teachers to cover a certain amount of the content in a specific

period are, in the eyes of teachers of this type, challenges to change as well (Sankuru 284-294).

4.2.2.2 Vacillating understanding of change as context adaptation-oriented for integration into the global world

The next ideal type of a *vacillating understanding of change as context adaptation-oriented for integration into a global world* puts the idea of a changing world at the centre of the narratives. The changing world is perceived in terms of plurality, globalisation and growth of knowledge which come along with new specific requirements. Educational changes are seen as responses to this changing environment. Therefore, teachers see educational change as a sine qua non of adaptation to the current changing environment. However, they keep questioning the potential of the educational system to prepare the youth to master these challenges. In the following chapter, this type is described along the criteria which emerged from the field data (4.2.1). Facets of the cases Bandama, Kafue, Kunene, Limpopo, Lualaba, Mania, Oba, Ruvubu, Ruvuma, Sanaga, Sankuru, Shangani, Songwe, Tana, Ubangi, Volta are related to this type.

Purpose and aim of change: Change for adaptation to the requirements of the changing environment

Teachers of the type of *vacillating understanding of change as context adaptation-oriented* perceive educational changes as undertaken to respond to the requirements of the changing environment. Oba gives an account of the link between the changing world and changes in schools.

“Yeah as far as the educational system is concerned I don’t have much to share but all I can tell you our education system is very dynamic it changes a lot and you know we are in a changing world which is associated with several new requirements so our decision makers change the system to make it fit with the requirements associated with new developments going on in the world” (Oba 70-74).

The interviewed teacher acknowledges that the educational system is dynamic. Similarly, he is aware of the idea of a changing world which leads to new requirements. Therefore, he assumes that decision-makers initiate changes to align the educational system with the requirements of the changing world. Teachers claim that the dynamics of the current changing environment determine the kind of education which is needed (Volta 45-47; Pungwe 141-143; Ruvubu 101-107; Shangani 406-410; Orange 76-78; Limpopo 228-229). From the teachers’ points of view, decision-makers

keep shaking the educational system in an attempt to make it fit the new requirements. For instance, Sanaga claims that educational changes are undertaken in order “to equip the youth with requisite skills for their global adaptation and potential competition in the global labour market” (Sanaga 174-176).

Interviewees see new requirements in different shapes. First, they associate new requirements to the idea of globalization as it has been underlined by Bandama in the following statement.

“There is a need to prepare Rwandans people not as likely to stay in Rwanda but in such way to be open to the whole world” (Bandama 183-184).

The interviewed teacher understands the move where the task of education has shifted from educating national to training global citizens. From his perspective, people are not expected to be confined in the same geographical space anymore, rather they keep moving and, consequently, they need relevant skills likely to help them adapt to the new contexts they settle in.

Second, teachers see new requirements coming from technological developments. Limpopo sees a kind of revolution in that respect.

“Actually, I want to make a comparison between periods in the former period we just had chalks and a blackboard I want to show you how time changes things you know we had books and notebooks but today I bring a whiteboard I bring a projector I take the internet into the classroom” (Limpopo 141-145).

By looking at teaching in the current time, compared with the former period, the interviewed teacher finds a huge difference. Currently, he assumes, technology has revolutionized the educational system as both teachers and students make use of products of the latest technological developments in class. Therefore, in the latter stages of the interview, Limpopo (147-156) finds new requirements coming in the shape of materials, infrastructures and skills needed for that purpose. The same opinion is held by other teachers (Sanaga 172-176; Orange 82-87; Kafue 57-61) with some of them suggesting that ICT has become a requisite tool for daily use and those who ignore it lag behind (Bandama 336-340).

Third, teachers of this type see the new requirements coming from the dynamics of the current market structures. While sharing his experience, Bandama attempts to explain the connection between the educational system and market structures.

“So there is a need to prepare Rwandans and to make them able to enter into competition at international level” (Bandama 187-189).

From the perspective of the interviewee, changes are initiated to prepare the youth for the current market, which is demanding in terms of skills and broad in scope. The same view is shared by Sanaga (169-176) and Bandama (187-189) who underline the idea of education serving to train people who can compete not only locally but internationally, as well. Teachers perceive changes as the shift of the language of instruction, the introduction of Swahili as a subject matter and the use of ICT in schools as undertaken in response to that situation of the labour market (Sanaga 169-176).

In brief, teachers of the ideal type of *vacillating understanding of change as context adaptation-oriented* consider the changing environment to be a force behind changes happening in the educational system. Change is perceived as a must in the current time (Kwango 194-197). There is a claim, among interviewed teachers, that the changing environment affects not only the content taught but the teaching approach as well (Limpopo 76-82; Akagera 146-150). Additionally, changes in schooling are perceived as driven by the desire to comply with an internationally binding educational agenda including the idea of education for all (Shangani 218-223) with its premise of inclusivity among others (Ruvuma 146-151; Bandama 86-91; Sanaga 155-164; Volta 41-42; Shangani 204-218; Kwango 269-272).

The Nature of change: Interpersonal relationship-oriented change

The ideal type of *vacillating understanding of change as context adaptation-oriented* considers change as mainly affecting interpersonal relationships. Teachers of this type observe a deterioration of relationships. The factors behind this are reported to be a change in students' quality, associated with the loss of teachers' self-reflected power. Similarly, there is a perception of decreasing youth behavioural standards. There is a claim that young people do not give a deserved credit to elder people and teachers, since they have found other sources of knowledge and inspiration facilitated by technological developments.

Change in students' quality

Interviewed teachers identify aspects which have contributed to the build-up of the current status of students' quality. First, there is a growing

awareness of children's and students' rights as has been highlighted by Ruvuma in the following statement:

"Yeah a lot of factors are behind this situation the very first one is just linked to the prevailing idea of children's rights now there is what we call respect of children's rights in all we do for them and all they do from their side actually I don't have any issue with children rights but some time there is an abuse of those rights that is the first aspect to consider in this regard" (Ruvuma 114-118).

The interviewed teacher is addressing the issue of misbehaviours as, from teachers' perspective, it has become a commonplace among nowadays students. He finds a number of factors behind that particular move with public awareness of students' and children's rights being one among others. The teacher claims that they are required to consider and respect children's rights in all they do for them. As a result, children and students are entitled to an unprecedented sense of freedom which they abuse to a certain extent leading to their insubordination, misconduct and rudeness. Ruvuma is joined by Ubangi (182-201) in that understanding as she blames a system breakdown and discloses that teachers are among the first victims.

Second, teachers claim that technological development has played a significant role. From this perspective, some teachers including Sankuru have pinpointed the downside of students' exposure to technology as observed in the statement below:

"On the one hand, technological development is helpful in various regards on the other side it has its own downside and it becomes harmful to children yeah because you take students to the computer lab and instead of learning they step into other irrelevant things what I want to tell you is that you...you know I am a teacher of ICT as I told you so you are in a class setting and the expectation is that they are learning or they are expected to be busy with a certain task then you go out just for a short call and you leave an assignment to them interesting enough when you come back you find some of them watching videos on YouTube hmmm you know you find some of them watching songs movies and the likes and sometimes they watch moves which are likely to bring harm to them or you just need to look at the use of the telephones at school you know some people use telephones as traps to exploit the youth but in general technology is very important as it helps people in their daily business" (Sankuru 329-341).

The teacher does not ignore the importance of technology in current daily life. However, she finds technology as distracting and interfering with learning and she sees it as a source of harm to the youth. Sankuru is not alone to share that experience with the contribution of technology. Rather, other interviewed teachers corroborate her point of view by emphasizing the idea of technology as a source of distraction to students (Sanaga 281-

285; Zambezi 74-77; Kafue 268-273). Some teachers don't hesitate to suggest that students' exposure to technology has thwarted the development and use of their independent thinking since for any task they are required to perform they rush to google to get ready-made answers (Zambezi 366-371). Besides interference with learning, teachers see technology as a tool which fosters the interaction of the youth with other cultures with a possibility for them to copy all kinds of good and bad behaviours from other contexts (Lualaba 82-87; Limpopo 110-115).

Third, teachers see a change in social relationships which is associated with a loss of certain key values. Teachers of this type report a loss of community educational responsibilities. Consequently, Songwe herewith associates students' misconduct with that development:

"Regarding students' good discipline, you know in the former period children were under the responsibility of the whole community wherever an adult person came across a child misbehaving he/she could correct him/her regardless of the relationship existing between them I mean adult people were considered to be educators of the youth but today that good practice does not exist anymore" (Songwe 114-119).

He recalls the situation in the former period where all adult people were expected to play a significant role in the education of the youth regardless of existing relationships. Adult people were entitled to the responsibility to educate the young generation in the community by rebuking and correcting them as well as instilling good values in them. This view has been emphasized by other interviewees, as well, who claim that in the former period, a child belonged to the whole community (Akagera 84-86) and elder people were considered parents to all children with responsibilities to educate them which does not apply any more today. Currently, adult people care for their children and their educational responsibilities don't go beyond the reach of their nuclear family (Casamance 89-92).

Teachers reveal that the situation depicted above accounts for the behaviours of the current students who are characterized, by a lack of respect for teachers and elder people (Molopo 144-148; Ruvuma 99-105), fearlessness (Sankuru 51-58; Shangani 85-90), greediness and luxury-orientedness (Molopo 147-155; Shangani 35-37) and a lack of commitment to learning (Songwe 28-36; Shangani 35-46; Sankuru 51-58; Sanaga 291-294; Tana 119-124; Molopo 97-101; Casamance 94-96; Kafue 34-36). Teachers claim that the current students don't value education because it has become free of charge (Oba 179-183) and with low prospects of getting a job at the completion (Lualaba 57-61; Sanaga 391-397).

Diversity of sources of knowledge

The type of *vacillating understanding of change as context adaptation-oriented* considers that students have access to a diversity of sources of knowledge. It is against this backdrop that Mania views the current environment as conducive to better learning outcomes.

“The culture here at this school is all students who sit for national exams they get their certificates and some of them get good results enough to secure government scholarships for higher studies but I do not prove that such results depend one hundred per cent on the knowledge we impart to them in the institution rather they have the opportunity to study at a better time where I would say technology is advanced and ahhhh students can get a little knowledge from the teacher now basing on that knowledge they can do their own research and get a better understanding of the topic being learnt and in some cases they learn a lot by themselves in such way that they go beyond what they should have been taught by their teachers” (Mania 159-168).

The teacher is proud of the performances of students in his school. However, he does not attribute the whole credit to the efforts of teachers. Rather, he recognizes the share of the current environment which he refers to as a “better time” for learning. From his perspective, this is the time when students can achieve independent learning. Students capitalize on the little knowledge and guidance provided by their teachers to take their learning to further steps. Other interviewed teachers share the same view, and they acknowledge that the move has been fostered by students’ easy access to sources of knowledge (Kwango 131-139) including radio programs (Mono 172-174; Akagera 86-91), television shows (Mono 181-184) and the internet (Akagera 86-91; Kunene 201-204) where some of them learn through tutorials (Mania 176-182).

Teachers claim that the force orchestrating these developments is the idea of the changing world. Mania is explicit in that regard as expressed in the following statement:

“So the current students are lucky they are learning but depending on their interest and their commitment to learning they have a chance to go deeper in the topic as they have a variety of sources of knowledge which were brought forth by the latest developments which go on in the world” (Mania 184-188).

He finds that the students learning in the current time should be lucky as they enjoy all kinds of opportunities associated with the changing world. Other interviewed teachers hold the same view, and they find the current time offering a variety of learning possibilities (Mono 181-184; Kunene 201-204). Likewise, interviewees do not find students to be the only ones

to benefit from the relief associated with contemporary time, since teachers get the best out of the diversity of the sources of knowledge as well (Oba 61-66). Interviewed teachers appreciate the developments as they find the current students to be more open and knowledgeable (Akagera 86-91). However, they disclose that the way independent learning is done, as facilitated by technology, leaves much to be desired. They find their students adopting the strategy of superficial learning associated with an attitude of copy and paste instead of immersing themselves in a deep and critical learning (Akagera 74-76).

All in all, the type of *vacillating understanding of change as context adaptation-oriented* considers the change of interpersonal relationships and the diversity of sources of knowledge as flagships of changes happening in the educational system. Ideas of students' rights awareness, youth exposure to technology, and a loss of social values associated with the loss of community educational responsibilities are regarded, by interviewees, as factors behind the issue of deterioration of interpersonal relationships as experienced in school and class settings. The claim is that students show a variety of behaviors which are not conducive to a good learning climate. As far as learning is concerned, teachers report that students are lucky as they can enjoy different learning opportunities fostered by a variety of sources of knowledge mediated by the achievements of the latest technological developments. They recognize that learning opportunities are available and sources of knowledge plentiful; however, the question of how students enjoy their independent learning remains open.

Perceived aspects of change management: Adoption of an imperative change

The ideal type of *vacillating understanding of change as context adaptation-oriented* shows that teachers are well aware of the changing nature of the environment they are currently living in. To this end, they find change as an imperative aspect of daily life. This is the case of Sanaga who suggests that there is no way to not change:

"The first idea I have to share hmmm the world is changing and we have to keep pace with changes happening in the world otherwise we would find ourselves lagging behind others and there are challenges we face along the way ahhh... there is what we call ahhh... you know we have a lot of changes happening it's like we have to change on daily basis" (Sanaga 544-548).

The teacher finds the world changing a lot and people have to adapt to the change otherwise they run the risk of lagging behind others. He recognizes that there are challenges which are associated with the current development; however, considering the rhythm of change, people can't help but adopt change. This view is also held by Molopo when he says that the world is changing fast with new developments coming in. People try to keep pace with the changing world; they try to catch all opportunities offered by the changing world and those who delay in one way or another find themselves lagging behind others (Molopo 107-111).

Interviewed teachers agree on the idea that the changing world sparked emergence of the new requirements (Molopo 139-141) and has reshaped the order of people's basic needs where the use of technology has emerged as a necessity for daily life (Bandama 338-340). According to teachers, that particular background has produced a different young generation with a variety of specific characteristics (Molopo 142-164). Tana refers to the current youth as the "after-genocide generation" (108-117). They are reported to be open (Akagera 87-91) and able to find new role models and sources of inspiration not only in their physical vicinity as was the case in the former period, but in their virtual communities thanks to the use of technology coupled with the idea of interconnectedness associated with globalisation (Ruvuma 118-123). Consequently, teachers see the change as necessary and imperative. Shangani holds the view that there is no way to resist the change in the current time:

"Yeah let me tell you that resistance to change is common to human beings that is their nature but we have to accept that changes are necessary and they happen in due time I mean changes happen because the time requires things to change" (Shangani 405-407).

From the perspectives of Shangani, human beings don't accept change easily. However, educational changes are necessary since they come as responses to emerging requirements. Other teachers join Shangani in that understanding. For instance, Pungwe (96-102) sees change as imperative since everything is changing. He is supplemented by Vaal (291-102) who says that even people have changed. For Orange (59-62), what is happening is beyond change, it is rather an evolution since humanity has moved from a certain step to another significant one.

In a nutshell, the ideal type of *vacillating understanding of change as context adaptation-oriented* underlines the idea that teachers see the changing world ushering in new developments which reshaped the existing social dynamics including interpersonal relationships. Without ignoring

emerging challenges, teachers agree that there is no way to avoid change and prevent it from happening. They report that all they do is just to adopt it and adapt to it.

Perceived teachers' position in school: Shift of power balance with associated loss of teachers' self-reflected power

The ideal type of *vacillating understanding of change as context adaptation-oriented* highlights the idea of teachers reporting a perceived reduction of their power with students rising in positions of power over time. The type recognizes a shift of power balance in class and school settings and everything, reportedly, seems to have changed to the benefit of students and to the detriment of teachers. Tana narrates this experience in the following sentences:

"There is something I did not mention and it is another significant change which happened it's about students' discipline I did not address it actually this is another dimension which changed a lot actually when we were students in our learning time we considered our teacher as our parent we knew that whenever we did wrong he/she was in a position to correct us and we accepted the punishment he/she gave us but this is no longer the case actually I forgot to mention it when you asked me to tell my experience with changes at the moment eehhh it's like... let me say the power balance in the class setting has shifted with teachers being at the disadvantage the current status of affairs is that students are boss in a classroom and teachers are in a low position they can neither make decisions about students nor punish them" (Tana 264-278).

The teacher finds the idea of change in students' quality as a significant incident which happened in the educational system, and he does not hesitate to call it a dimension of change. By referring to the situation in the former period, he sees two simultaneous scenarios when it comes to the power balance in the current time. He finds teachers losing power in the school setting while students gain it. From his perspective, teachers can neither make decisions about students nor punish them as the latter have seemingly become bosses in the classroom setting. To this end, interviewed teachers have been able to elaborate on the reason behind this. Some of them associate the situation with what they call a status of system breakdown where students got the freedom and latitude to do whatever they please without considering potential consequences (Ubangi 182-196; Oba 259-264). Others see abuse of the freedom which is granted to students (Ubangi 196-197) coupled with an ostensible limitation of teachers' authority in class as their decisional power has been taken away. The idea

of loss of teachers' power has been also underlined by Mono (79-81); he blames learner-centred teaching where students have been put at the centre of class activities thusly substituting teachers who used to assume a prominent position in the class. Similarly, he identifies further areas where he sees loss on the side of teachers. He argues that the latter had power when it came to decision-making as they had full rights to decide independently who, among their students, was eligible for promotion or repetition at the end of the school year which is not the case anymore (Mono 82-86).

Besides the idea of the loss of power, some interviewees rather find a loss of teachers' consideration among students. This has been emphasized by Ruvuma in her narrative:

"Students treat teachers as... anyway they treat them as teachers but this does not have ... a significant meaning to them as it used to have during our learning time and this applies to the relationship between teachers and school leader as well you find that teachers they treat the school principal as if he/she was their colleague they don't have any special consideration to him/her that was not the case in the former period as there was something I can call fear but it is a fear coming from the respect you have to someone but today students we have they don't care about that I think it's just due to the current period which is full of changes" (Ruvuma 103-111).

The teacher observes a change in terms of students' quality by considering how they treat their teachers. He finds a significant difference when he compares the current status with the situation in the former period. This does not only affect the relationship between students and teachers but rather between teachers and school principals as well. The latter do no more command any special consideration among teachers as they used to do in the former period. Consequently, the teacher observes, students' growing up in that background are characterized by a lack of discipline, a lack of respect, a lack of consideration and fear towards adult people. The interviewee reveals that teachers find themselves at a disadvantage in that situation.

Interviewees disclose that teachers' power has gone diminishing up to the point of getting victimized by students. The following statement from Ubangi underlines:

"There is what we call children rights where the latter got enough freedom in what they do but to be frank with you they abused it you know children have been granted too much rights that is difficult for them to manage and from time to time teachers are victims of that scheme of things students have been sensitized to their rights and in some regards they abuse their teachers I give an example sometimes you can punish a student for his/her wrongdoing and as soon as you punish

him/her he/she rushes to complain to the local authorities where he/she reports the case in an abusive way like he/she transforms his/her complaints into a criminal case and the teacher runs the risks of undergoing legal proceedings you see you punish a student in a normal way and he/she immediately goes to lie to the authority where he/she forges all kind of crimes and the authority opens legal proceedings against teacher who from time to time runs the risks of getting punished for the acts he/she did not commit and in the end becomes victims at hands of his/her students the reason behind this is that children have been sensitized to their rights which is good but something is missing in that sensitization there is a need to tell children that it's good for them to enjoy critically their rights" (Ubangi 196-213).

The teacher shares the experience of what happens in the school setting. Students have been granted too much freedom and they have been sensitized to their rights and, as a result, they abuse it. They even forge crimes which they attribute to their teachers when the latter want to be serious in their educational practice. That experience has been shared by other teachers who report a scenario of a shift of power balance in the school setting associated with cases of teachers' victimization and harassment by students (Tana 264-28; Songwe 170-176). Some students when get punished take the case to the authorities to start legal proceedings against teachers (Ubangi 232-239). Having that background in their minds, teachers report that they try to be careful in how they deal with students and some of them look fearful (Kafue 182-185; Songwe 411-417) while others take a careless attitude (Songwe 418-421).

To put it briefly, the ideal type of *vacillating understanding of change as context adaptation-oriented* recognizes a shift of power balance in schools and classes and teachers find their authority diminishing over time. The type identifies factors which are believed to be behind that development, including the raise of awareness of students' rights and freedom coupled with the government's position regarding students' rights. Similarly, the new teaching approach of learner-centeredness has been singled out, by interviewees, as a contributor by putting students at the centre of class activities while denying teachers' monopoly of knowledge. From the perspectives of the interviewees, teachers have been dethroned from the position of authority and dominance while students gained much power and liberty which they abuse from time to time Teachers report cases of their victimization and harassment by students. Consequently, interviewed teachers declare that they are compelled to rethink the way they deal with students with some of them adopting a careless attitude which is detrimental to the quality of education.

Teachers' relation with change

The ideal type of *vacillating understanding of change as context-adaptation oriented* brings out the attitudes of teachers in regard to change as evidenced through their narratives. It highlights their relation respectively with the change in schooling and the changing world.

Teachers' relation with change in schooling: Adaptation with scepticism

Teachers reveal their awareness that the school system does not stand as an island, rather it is a part of the changing environment. Therefore, they claim that change in the latter affects the school which responds by changing as well. To this end, Volta takes his reflection a step further to establish a link between the school and the global society.

"The school needs to be closely linked to the society which means hmmm the school needs to scan the current environment to check what the current society needs please get me well I mean hmmm not only the Rwandan society but the global society let me put it like this if for instance we need engineers we need to train them in a way that they will be able to not only satisfy the local market but also compete at the global market obviously this is not only for engineers the same idea applies to medical doctors, agronomists vets teachers and all other professionals as well so we need a change of mindset I mean we need to move from a status where we see a classroom like a room where we have a blackboard and chalks to be used by teachers to a level where we understand a school as a system where you find teachers and leaders who operate in a close relationship with the society" (Volta 196-207).

The interviewee recognizes that the school operates in an environment which has its specific requirements. Therefore, it is the school system's responsibility to scan the environment and adapt to it. The teacher sees the dynamics of the changing environment as driving the change in the educational system which he accepts and, thusly, advocates for a change of mindset when it comes to how people view education. He wants people to grow in their understanding of education by recognizing the close relationship between school and society. The approval of change is common to other interviewed teachers as they find change as a necessity which calls for adaptation (Sanaga 539-548; Casamance 208-210). While acknowledging the complexities associated with human nature when it comes to accepting new things, interviewees don't see any reason to resist the current changes as they happen in response to the current time's requirements (Shangani 405-407). In their endeavours to adapt to change, teachers report that they make efforts to change their perspectives on education.

They say that they shift from an age-old view of education as a privilege for some to an understanding of education for all, being a foundation for life. The following statement of Kunene shows the development already taken by teachers to change their understanding of education.

“The point is that students must learn but they need to learn how they will take advantage of what they learnt as well actually the idea behind this is that yes ...ok students must be taught not in a way to make them job seekers but they learn in a way that they feel they will be responsible reflective and come up with strategies likely to help them grow responsibly cope with challenges of daily life and become problem solvers” (Kunene 188-193).

The interviewee emphasizes the idea of relevant learning which will help students to earn their lives. From her perspective, teachers are making efforts to get rid of the age-old tradition which considered education as meant to train job seekers and adopt the new understanding of learning as intended to help the youth become responsible citizens who are problem solvers. The need for relevance of knowledge has been emphasized by Orange (67-71) who says that while teaching he makes sure that the knowledge his students get will help them to cope with the challenges and complexities of their daily life. Similarly, by looking at the change in interpersonal relationships as depicted above, teachers try to change their attitudes toward students. The following statement taken from the interview with Sanaga underlines the idea of tolerance displayed by teachers.

“Basically when you are a parent you feel a love for your offspring you know we have a saying in Rwanda going like “ animals lick their new-born babies even if they are disabled or rotten” that means when I have that sense of being a parent not just a teacher to my students I change my way of looking at my students and whatever they do I try to be tolerant they can insult me they can hurt me they can look at me with the contempt they may disrespect me but when I feel I am their parent I can't help but just being tolerant the point is that we change perspective and say like... if something like that happens in the family setting at home shall I be able to kick out my child who disrespects me? If I kick him/her out what will then happen to him/her? So what I usually do I try to be tolerant with them and educate them by showing that what they did was wrong and I found out that it works when you continue to educate and educate you find out that they end up becoming kind and nice grown-ups” (Sanaga 743-754).

The teacher gives an account of how he shifted his perceived status towards students from the position where he felt he was just an instructor to the point of becoming like a caring parent to them. The shift of a self-reflected role in the school/class setting came along with a change of attitude to learners. Basically, he became tolerant and this helped him to manage the current students who, from teachers' points of view, look

stubborn, disrespectful, insubordinate, rude and unruly (Ruvuma 102-111; Molopo 144-148; Shangani 28-36; Songwe 119-126; Sankuru 51-58). The idea of the change of attitude towards students was found to be common to other teachers who claim that they became like parents (Tana, 53-59) and friends to students (Orange 113-116; Ubangi 90-93; Sanaga 591-597) and they feel they are ready to take risks and sacrificing for them (Sanaga 754-766).

Interviewed teachers see change as a necessity and they make efforts to adapt to the change. In some regards, they are required to make some adjustments in their beliefs and perspectives on education as well as attitudes to students to accommodate change. Teachers make adjustments to accommodate the change; however, looking at the educational organization, they question the school system's potential to bring solutions to the requirements of the current time. Without losing sight of education's necessity, especially in the current challenging moment, they keep wondering if the education system has what it requires to help the youth live up to the demands of the current daily life as Volta states.

"Let me tell you that the current environment challenges the current education system as it requires skills and knowledge which are beyond what our schools can offer" (Volta 177 -179).

The interviewee underlines that the requirements associated with the current changing environment are beyond the school's capacities. Other interviewed teachers hold the same views; they identify gaps in specific areas of the educational system. In this way, Bandama sees the problems on the side of teachers, as from his perspective they have neither enough requisite knowledge nor time to do research to increase it (Bandama 599-600). Shangani, meanwhile, finds the problem on the side of current students who are not able to learn by the standards of the former period which was, from his perspective, better (Shangani 306-316).

Teachers' relation with the changing environment: appreciation and uncertainty

The ideal type of *vacillating understanding of change as context adaptation-oriented* underlines the idea that teachers find the current environment as demanding. As a result, they assume that it triggers an unprecedented need for a relevant education since the latter is believed to be a foundation to rely on to tackle the daily challenges as it is emphasized by Ruvubu in the following statement.

“Actually we are going through unprecedented progress in various domains and everyone feels it (...) we are in a period where a number of changes are going on you know to cope with those changes and associated developments we need to have requisite knowledge we need to have knowledge if ever we want to keep pace with changing world and that knowledge will come from education I mean formal education yeah” (Ruvubu 102-107).

The interviewed teacher sees a fast-changing world with its associated complexities and requirements. He understands that knowledge and competencies acquired through education will help people to rise above the challenges brought about by the current world trend. He hints at an unprecedented need for education. That belief is shared by other teachers as they argue that the current generation, in general, and the youth, in particular, needs education more than ever before (Dawa 117-120; Volta 162-165). Interviewees don't hesitate to suggest that education is a reliable solution to all questions and challenges posed by the current changing environment (Dawa 131-137; Kwango 185-192; Ruvubu 102-107; Vaal 206-220; Okavango 93-94; Ngolo 101-107; Shangani 330-338; Volta 162-165; Zambezi 122-124).

Interviewed teachers question the youth's potential to live up to the requirements of the current daily life. On the one side, they are appreciative of the opportunities and facilities which the current environment offers to the youth. On the other side, they are uncertain when it comes to the youth's ability to make the best out of the available opportunities. The following statement by Oba highlights that ambivalent view.

“Students of this time have a lot of learning facilities they have access to the education they are using the internet in class but the worst of it is that they are not able to make use of those opportunities in a proper way they have a lot of facilities they have a lot of opportunities but they don't care” (Oba 166-169).

The interviewee identifies access to the internet as a relevant aspect which stands out when it comes to learning facilities offered by the current changing environment. Other teachers elaborate on other existing opportunities including easy access to education coupled with caring teachers (Sanaga 60-71) as well as the availability of books and access to a variety of sources of knowledge (Kafue 32-35). Some teachers go so far as to suggest that the current students are lucky (Sanaga 60-63) as they have everything they need for quality learning (Kafue 34-35). Yet, interviewed teachers underline that the youth is not able to fully take advantage of existing opportunities. They are considered to lack a commitment and motivation to learning (Kafue 35-36; Songwe 30-34) because they fail to design the purpose of their life at the early stages (Songwe 34-35).

In brief, teachers understand that the educational system must be and is affected by developments going on in the world. They reveal that they respond to change by adapting their mindsets, attitudes and practices to the new requirements. They testify that they have grown in regard to their understanding of education and their relation with students. Similarly, while recognizing that the current environment is very demanding, they stay optimistic and keep high expectations of education's potential to achieve a significant breakthrough. However, they look sceptical when it comes to the prospects of the current education system to prepare the youth for an uncertain future lying ahead.

Perceived challenges to change

The type of *vacillating understanding of change as context adaptation-oriented* delineates specific challenges to change. As teachers put the ideas of changing world and interpersonal relationships at the centre of their narratives, they tend to situate the main challenges to change on the side of students. In this regard, Lualaba dares to say that students don't value education.

"Yeah comparing teaching in both cases (...) students in the former period had a kind of fear about learning let me say a kind of respect towards learning but currently they take it easy they don't have any fear or any special consideration about learning they don't worry about it they don't find any reason to work hard they are familiar with it and that was not the case in the former time" (Lualaba 57-61).

By comparing learning in current and former times, the interviewee finds a significant difference in relation to how students value education. The current students don't give due credit to education and the reasons behind that attitude are thought to be associated with the ideas of free education (Oba 179-183); perceived poor returns of education (Songwe 34-44) and reduction of teachers' power in school or class settings (Kafue 182-185; Songwe 121-126; Tana, 266-278). Other interviewees talk about the quality of the current students. That is the case of Sanaga (411-413 who claims that they lack a purpose of their lives.

Other interviewed teachers share their views about the students. From their perspectives, students in the current time are characterized by lack of commitment to learning (Kafue 34-36; Molopo 97-101; Sanaga 420-431; Sankuru 61-65), a lack of respect (Molopo 145-148; Ruvuma 99-105; Shangani 28-31; Songwe 114-119; Vaal, 131-138), a lack of independent

thinking (Zambezi 74-77), a sense of greediness (Molopo 147-155; Shangani 35-46) and insubordination (Ruvuma 99-105; Sanaga 482-484; Shangani 28-36; Songwe 120-126; Tana, 108-119).

Above all, the students are seen as living in a digital period where they enjoy all facilities associated with technological developments. However, they lack a requisite digital literacy as has been highlighted by interviewed teachers including Kafue who underlines students' inability to use technology effectively:

"On the other hand even students they are not able to use that technology effectively you take them to the smart classroom and they fail to learn what you intend them to learn not because they are not able to do research but because once arrived there they open other programs and websites like YouTube and sport that is a challenge as well the use of technology for education purpose is a very big issue" (Kafue 268-273).

Sharing her experience, the interviewee recognizes the availability of basic technological infrastructures and equipment in their school. However, she deplores the fact that students are not able to make the best out of available facilities as, instead of learning, they rush to other irrelevant programs. Other interviewed teachers shared the same experiences depicting the situation as the downside of the use of ICT in schools (Sankuru 329-341). They view the students' exposure to ICT as a factor of copying bad behaviours from other contexts (Ruvuma 118-123), a source of distractions and, in the end, a challenge to learning (Sanaga 282-285; Sankuru 329-341; Zambezi 74-77).

Lastly, teachers do not miss to mention their concerns especially when it comes to their access to technological facilities. Bandama (460-474) claims that the availability of technological facilities at school is one thing but it is not everything. From his perspective, teachers are not happy when they see computers kept in schools' shelves and labs ready to be used in school premises while they cannot use them at their home when working on lesson preparations.

In brief, the type of *vacillating understanding of change as context adaptation-oriented* highlights the idea of the variety of sources of knowledge as a change. Teachers appreciate the learning possibilities brought forth by the current environment. However, three challenges prevent students and teachers from taking full advantage of available facilities. Those include the uncommitted and insubordinate students, the lack of digital literacy on the side of students and a lack of access to technological devices on the side of teachers.

4.2.2.3 Functional understanding of change as human capital investment-oriented for a knowledge society

The ideal type of a *functional understanding of change as human capital investment-oriented for a knowledge society* considers education to be a key factor to the prospect of a bright future for which teachers hold an optimistic stand. It focuses on the change of pedagogies. Change is perceived as being undertaken to improve students' learning. Teachers express their appreciation of change and show their commitment to change. Moreover, they are proud to suggest strategies to rectify any gaps and shortcomings identified in the change process. In the following paragraphs, the description of the type is done in line with criteria which emerged from field data. Facets of the cases Bandama, Kunene, Limpopo, Mania, Mono, Ngolo, Okavango, Ruvubu, Sanaga, Sankuru, Shangani, Songwe, Ubangi, Vaal and Volta are related to this type.

The Purpose of change: Improvement of learning

The ideal type of *functional understanding of change as human capital investment-oriented* sees changes as undertaken to improve the quality of learning. Teachers appreciate the change and they tend to find in the change aspects aiming to improve the quality of learning. In the following statement from Limpopo, he discloses what he understands by the improvement of learning.

“Currently we have changes affecting the curriculum to align it with the requirements of the current period as I described before I mean that all those changes are designed in a way to help students learn better making use of their brain effectively and develop their critical thinking” (Limpopo 190-193).

The interviewed teacher claims that educational changes are initiated to help students learn better. From his perspective, better learning requires the activity of the brain and leads to the competency of critical thinking as an outcome. Other interviewees join by relating specific changes to the idea of improvement of learning. They refer to the new curriculum as designed to help students achieve good learning (Kunene 145-147) and the use of ICT in schools which provided students with more sources of information (Bandama 332-339). They suggest that the shift of the language of instruction has contributed to learning as well. The following statement from Volta goes in that direction:

“But on the other side learning a new language is an opportunity for people to learn new things and explore new experiences and when you learn it and manage to master it obviously you are lucky as you feel open to further opportunities which may come your way” (Volta 68-71).

The interviewee recognizes that the introduction of the new language of instruction expanded learning by providing students with new learning opportunities and experiences. The same opinion is shared by Bandama (347-353) who sees a better future for the youth as they become open and get a variety of knowledge in their endeavours to learn English. Furthermore, teachers manage to find a connection between the idea of learning improvement and other changes like the school feeding program and teachers’ horizontal promotion which is associated with salary increase. They say that the former change was initiated to enhance students’ commitment to learning (Casamance 238-242) while the latter is expected to boost teachers’ motivation and, thusly, increase their productivity (Okavango 63-67).

By reflecting further, teachers of this type understand that changes happening in the education system are conceived to help the country to achieve the goal of becoming a knowledge society. In the following statement, Shangani manages to link the idea of educational change to the goal of national development via the transformation of the quality of the population.

“The Government is helping its citizens to come from illiteracy and become educated the point is that should people be educated hmmm or should they get the knowledge they will manage to earn their lives easily [...] so the reason behind the change is the attempt to help people I mean to equip Rwandans with the skills needed in their endeavours to reach development” (Shangani 233-242).

The teacher underlines that changes are initiated for the good of society. From his perspective, change is designed by the government to achieve targeted social welfare and economic development. The teacher expresses that decision-makers are aware that the vision of a skilled population is the key to success. He highlights his point when he says that *“the country is progressing and we need competent and skilled people to attain our targets”* (Shangani 398-402). The same point of view is shared by Bandama who claims that educated people are a significant factor in the government’s plan of achieving a knowledge-based economy (Bandama 158-161).

“if you look at Rwanda’s future vision there is a need to transform the country into a knowledge-based economy obviously you cannot get a knowledge-based economy with uneducated people that is the first thing which is in line with society’s vision” (Bandama 158-161).

The interviewee refers to the government's vision of economic transformation where human resources are considered to be reliable assets. To achieve a knowledge-based economy, there is a need to work on the quality of the population. The interviewed teacher sees education change in that perspective.

Teachers perceive the connection between education and national socio-economic development. They claim that, by undertaking educational changes, the government is fast-tracking its developmental targets which consider a skilled population as a foundation for socio-economic transformation.

The nature of change: Pedagogical change

This ideal type of *functional understanding of change as human capital investment-oriented* emphasizes the centrality of pedagogical change. Teachers of this type see the change of the curriculum from knowledge to competency-centeredness coupled with entailed teaching approaches. Similarly, they consider the use of technology in schools to be a booster of both teaching and learning. In the following statement, Songwe gives an account of the circumstances in which the curriculum was changed.

"Yeah you are right it is a long journey which is full of changes we had various changes including the change of curriculum where we shifted from a knowledge-based to a competency-based curriculum the former approach focussed on the transmission of knowledge but at the end of the day they found out that it was not really helpful and relevant so they shifted to the new approach which focusses on competences acquisition" (Songwe 48-53).

The interviewee elaborates on the change of curriculum which consisted of shifting from a knowledge to a competency-based curriculum. He says that the former curriculum proved to be inadequate, and it was substituted by the latter which was thought to be more relevant by looking at competencies acquisition. The curriculum is appreciated by other teachers like Okavango (164-168) and Oba (85-89) who appreciate its emphasis on the application of knowledge. Teachers highlight competency development as an aspect of the new curriculum (Shangani 125-128; Pungwe 73-76; Ruvuma 64-69) however, their statements show a variety of opinions when it comes to their understanding about its implementation. Teachers in general education and TVET understand the new curriculum as an appeal to focus on students' implications in their learning (Ngolo 66-68; Nile 47-52; Casamance 232-236; Akagera, 146-147) while their counterparts in

TTCs claim that the new curriculum stands out by its focus on the acquisition of relevant knowledge, skills and attitudes (Kunene 162-180).

Interviewed teachers explain that the new curriculum brought about a new teaching approach (Sankuru 5-8; Awash 34-36) which puts a special focus on the idea of learner-centred methods. The following statement from Mono shows how teachers understand and implement the learner-centred approach to teaching:

“Later on there was a change and we shifted to learner-centred teaching where students are at the centre of the whole teaching process and they are responsible for their learning the idea being that students have the knowledge and the teacher must base his/her teaching on that prior knowledge and his/her task is to improve it” (Mono 49-52).

The interviewed teacher shows that the learner-centred teaching approach puts students at the centre of class activities. They have knowledge which they can base on to learn. Other interviewed teachers joined Mono by suggesting more premises which underpin their implementation of a learner-centred teaching approach. They underline the idea of students being responsible for their learning (Ubangi 133-138; Vaal 142-143; Mania 291-295) which is enacted through principles of active participation (Ubangi 381-382; Awash 44-46) and independent, individual (Sankuru 118-121; Sanaga 529-532; Lualaba 48-51) and collaborative learning (Mania 295-300; Sankuru 148-153).

While sharing their experiences about the new curriculum, teachers express how their students enjoy self-learning. Ubangi shares her perceptions regarding the shift of the position of students in class.

“In the former period the point was that the teacher prepared the content he/she brought it in class shared it with students and the latter were passive in the class setting they just said “well I have now the content as it was prepared by the teacher I take my time to memorize it then I will wait till the time when the teacher will schedule the assessment” in that regard there were some teachers whom we had dubbed “give me back my content” and they were named so after their way of setting assessments which addressed only the reproduction of knowledge but today there is a difference you know as students do their researches as they are responsible of their learning they can use reflections to evaluate questions in different perspectives I mean they have different ways of addressing a question asked to them and come up with a consistent answer to it” (Ubangi 344-355).

The teacher makes the comparison between teaching and learning in both current and former periods and shows the progress achieved in the course of the change. She witnesses a significant change in two respects. First, there is a shift in students’ position in class from passive to active learners;

second, she sees a change in regard to how students take on their learning from memorization-based to reflective learning. Other teachers share their views about the developments which happened in the shape of practice-oriented (Pungwe 62-71; Lualaba 45-47; Kunene 81-89) and research-based learning (Okavango 11-19; Lualaba 48-51; Sanaga 529-532). Interviewed teachers elaborate on other aspects of change which are in line with an improvement of learning including the consideration of students' interests and skills as foundations of teaching (Mono 65-69) and the use of teaching aids which are locally made (Kunene 140-145). They recognize the contribution of technology which plays the role of a booster of teaching (Sankuru 184-192; Sanaga 532-533; Okavango 13-19; Nile 105-109; Orange 116-120) and learning (Oba 166-167; Limpopo 146-150; Casamance 228-232; Awash 230-234).

To put it briefly, this ideal type highlights teachers' experiences with educational change by focusing on curriculum and teaching practices. Teachers claim that they are implementing a competency-based curriculum which came to substitute the old one which was based on knowledge transmission. Similarly, they share their experience on how they see new teaching methods of learner-centred teaching approaches. This new approach is summed up by Sankuru when he says that "Students take a pivotal role in the journey which takes them to the acquisition of knowledge" (11-14). Similarly, Teachers recognize the notion of the use of technology in schools as a change which aligns with the goal of learning improvement.

Perceived aspects of change management: Taking ownership of a convenient change

The ideal type of *functional understanding of change as human capital investment-oriented* acknowledges the perception of involvement of teachers in the change process and highlights their engagement with the change through learning. While addressing the role of teachers in change, Volta recognizes their active participation in different steps of the curriculum change.

"Teachers made contributions at different levels of curriculum development first of all they helped in the process of identification of gaps associated with the previous curriculum you know we had a knowledge-based curriculum before second they gave their inputs when it came to the curriculum design moreover they were involved in the process of curriculum development and finally they helped and

they help by training their colleagues about the implementation of the new curriculum" (Volta 131-137).

The interviewed teacher discloses that teachers played a significant role in different steps of the change of the curriculum. He says that teachers helped by contributing to the process of needs assessment, sharing ideas for design, participating in the development of the curriculum and training colleagues about the new curriculum. Elsewhere she expresses a sense of ownership of the new curriculum by teachers as it is a product of their efforts (Volta 120-121). The practice is reportedly opposed to the previous tradition where the curriculum was developed by specialists and handed down to teachers for implementation. While the recognition of teachers' active involvement in the development of the curriculum is a common idea among teachers' educators (Volta 120-121; Vaal 441-445), their counterparts in general education and TVET report a limited involvement in the process, seeing their contribution being limited to sharing ideas for the curriculum design (Kunene 307-310) and reporting mistakes and shortcomings identified upon curriculum release (Zambezi 233-239; 312-316).

Besides the experiences of teachers' involvement in change planning, interviewees elaborated on the procedures and strategies taken in the framework of capacity building in regard to change. In this respect, Mania narrates how teachers learn about and manage to rise above difficulties associated with change.

"Every change starts with challenges any new thing comes with its difficulties and it is not easy to welcome the new thing let me tell you that when we embarked on this new system we had a lot of problems with it many problems many questions about it we had a lot of questions about what how and why we did not understand the idea of modules in secondary education we had questions about the organization of assessment but we got accustomed to it thanks to the training we got and... what we appreciate a lot about the Ministry of education is that whenever there is a change they take people to training in order to help teachers or let me say their stakeholders to have a clear understanding about the change and they find answers to some questions like why to change and how to change so through training we learnt a lot about change and we found good results of change over time and we reached the point where we said the new system is better than the old one" (Mania 308-317).

Mania recognizes difficulties and challenges encountered by teachers when they embark on change, and he finds it normal that teachers keep questioning change at its very beginning. Yet, he appreciates efforts made by the Ministry of Education to support teachers get a clear understanding and learn how to implement the change. He claims that the learning is

done through in-service teachers' training. In line with this view, other teachers acknowledge the support they get, in the process of change, through in-service training (Vaal 189-191; Sanaga 185-194; Okavango 235-238; Nile 250-252), school-based mentorships where some well-trained teachers pass on their experiences to their mentees (Ubangi 530-533; Songwe 251-257) and the idea of communities of practice (Sankuru 195-197; Mono 365-367; Ruvuma 210-215). Similarly, interviewees reported that some schools engage in networks where teachers and students share experiences about change and learn from one another (Ruvuma 231-237). However, teachers deplore the organization of their learning about change. They claim that, in some regards, change precedes learning (Molopo 167-170; Songwe 400-409) and they criticize the organization of in-service teachers' training for its lack of follow-up (Dawa 131-134).

In a few words, this ideal type of *functional understanding of change as human capital investment-oriented* highlights teachers' recognition of their involvement in the change process with some of them claiming the new curriculum to be a teachers' product. The type shows that the teachers understand the necessity of change and engage in learning about it through the processes of in-service teachers' training, mentorship, and organization of communities of practice.

Perception of teachers' position in schools: Shift in the role of teachers (Teachers as organizers of learning)

Teachers report a change in regard to their position in schools and class settings. They see a shift in the role of teachers in the learning process as it is claimed in the following statement from Vaal.

"But as of today things have changed teachers are not expected to play a pivotal role in class settings anymore the balance has shifted in this regard with students being expected to be more involved in their learning but for students to play such a role in their learning they need to have a competent teacher who has a good command of the content to be learnt and the teacher who is able to organize the class in a way to help students take on their active responsibilities in their learning and this is a challenge" (Vaal, 134-141).

The interviewee sees a shift of power balance in the classroom setting as teachers have seemingly lost a part of their previously considered prominence in the classroom for the benefit of students' independent learning. She does not consider this change as a loss; rather it is a restructuring of teachers' role in a classroom setting where the focus is put on the learning organization. From her perspective, this role change needs a variety of

competencies on the side of teachers. Sanaga joins in with a similar narrative with further details especially when it comes to the comparison between the former and the current system:

“We had a system where the teacher was at the centre of all activities taking place in a class setting but since recently they changed and they introduced a competency-based curriculum which reverses things and takes the learner to the centre of class activities the underlying tenet of this approach is that learners have the knowledge and the role of the teacher is to help the learners to improve and expand their knowledge this was not an easy change because we had the understanding that teachers were eehhh we used to say that the teacher is a scholar- a master of the subject (laughs) teacher is the holder of knowledge this understanding was that the teacher knows and is in a position to transmit knowledge to the students who are receptive enough to accept whatever comes from teachers without questioning I mean if the teacher writes the letter I in this way you don't question you take it like that but we ended up finding out that even students have knowledge” (Sanaga 199-211).

The teacher argues that the newly introduced competency-based curriculum takes learners to the centre of the class. By referring to the former period, the interviewee sees a significant change since teachers were considered as scholars and holders of knowledge which they transmitted to passive students. The responsibility of students was to comply with teachers' decisions and accept whatever came from their side. The role of teachers has now shifted from knowledge transmitters to learning facilitators (Limpopo 58-61; Mania 291-295; Ubangi 104-109). From the perspective of the interviewees, teachers are no longer considered as unique sources of all knowledge (Limpopo 55-61; Mania 189-191), the masters of content (Oba 49-53; Sanaga 205-208) or as scholars expected to transmit knowledge without being questioned by students on what and how (Sanaga 205-211). Currently, they consider their role as designing (Ubangi 99-103) and triggering learning (Sanaga 121-125; Shangani 136-138), providing a basis to rely on for effective learning (Lualaba 46-51), supervising (Limpopo 58-61), checking (Ubangi 109-117), and facilitating learning (Orange 26-31) by providing individual support (Ubangi 109-117) and related guidance (Lualaba 54-55; Tana 248-257). This means, above all, creating space for students' independent learning (Ubangi 291-295; Mania 191-195). Teachers witness a balance of power where the idea of almighty teachers in front of ignorant and passive students has been replaced by a cooperation of two sides for the benefit of learning (Ruvuma 88-93; Ubangi 344-352). This has been reported to promote a good learning climate characterized by a scare-free good relationship between students and their teachers (Sanaga 591-597; Ubangi 81-89).

The interviewees claim that the change of curriculum with the associated change of the teaching approach has impacted the understanding of the position of teachers in schools and class settings. The idea of almighty teachers who commanded fear and scare is reported to be left behind. Teachers are, from interviewees' perspectives, currently seen as friends of students who care for them and facilitate their learning.

Teachers' relation with change

This ideal type of *functional understanding of change as human capital investment-oriented* depicts teachers' perceptions of their attitudes and adaptation to change in two regards. Based on teachers' narratives, the type underlines the relations of teachers with both the change in schooling and the changing world.

Teachers' relation with change in schooling: approval, learning and change

Teachers show approval of the change in schooling. Data indicate that their approval evolves in four dimensions. First, they show a positive attitude to the change in schooling as is seen in the following statement by Kunene.

"Currently we teach and students get knowledge but we emphasize the aspect of showing the students how the knowledge they get will help them in daily live and that is the core basis of the new curriculum in the former period yes we learnt we got the knowledge but they did not show us how that knowledge would help us to get along with daily life currently there is a difference when you are a teacher of course you help students get knowledge but it's your responsibility to show them what they will do with that knowledge" (Kunene 83-89).

The teacher refers to the change of the curriculum and associated pedagogies which she appreciates. She hints at the idea that the new curriculum offers possibilities of linking learning with students' daily life. In later segments of her interviews, she discloses that the current curriculum is designed in a way to help learners get knowledge, skills and attitudes (Kunene 319-323). Other teachers share their positive attitudes as well. They find the new curriculum and associated teaching approaches relevant as it promotes learning by putting students at the centre of class activities (Zambezi 3030-305; Mania 191-200; Vaal 179-186; Ubangi 344-358; Shangani 136-139; Sanaga 216-224; Okavango 164-168; Nile 186-193). Similarly, they find the new curriculum full of guidance for teachers (Ma-

nia 40-52; Vaal 306-326; Ruvuma 173-175) and suggesting relevant content which is linked to students' daily life thusly motivating students to learn (Nile 61-66; Casamance, 378-381). Additionally, teachers find it relevant because it fosters the development of students' creativity and critical thinking skills (Orange 177-179), and they say that it meets the requirements of the current labour market (Ruvuma 176-181). They like the newly introduced teaching approach because it is practice-oriented (Ruvuma 183-189; Kafue 229-236), it fosters both acquisition and application of knowledge (Mania 323-326; Lualaba 164-171; Oba 85-89; Dawa 334-336), as well as the development of competencies on the side of students (Oba 113-120; Bandama 324-330). Consequently, interviewed teachers have high expectations about the change of pedagogy as they expect the quality of education to be enhanced (Molopo 203-204; Limpopo 183-186) and economic development boosted (Bandama 317-322; Akagera 218-224).

Second, against this background, teachers disclose that they engage in learning about the change to get familiar with it as has been testified by Ruvubu in the following lines.

"Later on the new approach known as competency-based teaching came in it was not easy for me but as a teacher I made efforts to adapt to the new curriculum in order to comply with the new education policy today I feel comfortable with it I am familiar with it and my students succeed in exams to manage it I worked hard I did researches and I participated in training basically training eehhh ... participating in training which were organized and making efforts to do my personal researches helped me to gain a good experience with this new curriculum" (Ruvubu 48-55).

The teacher says in-service training was organized to help teachers get familiar with the new curriculum and he testifies that he went beyond and engaged in intensive individual learning. The need for self-learning is also emphasized by Songwe (400-409) who claims that training proves to be insufficient and teachers have to come up with other relevant strategies to learn about the change.

Third, teachers explain their implementation of the change. Though approving the change and fully supporting it, they intensively and even critically engage with it.

"When they talk about this curriculum ... all they say about it... if we can manage to implement it that is outstanding and fantastic if it is well implemented as expected it is far better than the previous curriculum now to implement it well that is on both sides on the one hand the Ministry of education must make all related

books and literature available yet that is not the case now if you look at the textbooks we are using now they are very poor but when relevant books will be available it will be fine on the other hand teachers need training and refresher training in order to implement the new curriculum" (Ruvubu 172-179).

The interviewee displays his appreciation for the new curriculum. From his perspective, the curriculum is generally fine. However, he sees areas of improvement in terms of the availability of teaching and learning-enabling facilities. He underlines that teachers are not yet fully ready to implement it; thus they need further training. The same appreciation is given by other teachers who claim that the new curriculum will be better the moment teachers will master it (Vaal 106-113; Bandama 324-330; Ruvubu 172-174) and when the related resources will be available (Casamance 385-389; Awash 226-238). As far as Limpopo is concerned, he suggests that the idea of curriculum change takes a big deal of time which has not been the case for the one being currently implemented. He hinted that the new curriculum was not ready at the moment of its release (Limpopo 232-237).

Fourth, interviewees' narratives show that teachers have already taken ownership of the change as it was insinuated by Okavango in the following lines.

"Today teachers work in collaboration with students... actually students are likely to play an important role in learning and our task as teachers is just to guide them they do research by themselves they learn by themselves under the guidance of the teacher like for instance we give them topics and we take them to ICT room in the smart classroom and they do research or I show them a short video which I prepared in line with the topic of the day I play it in the classroom they watch it on screen and they try to learn from it I acknowledge that there are improvements we achieve along the way especially in comparison to the educational organization in the former time" (Okavango 13-21).

The teacher refers to his practice in a class setting. He underlines the way he organizes his class for guiding students in their independent learning which is facilitated by the use of ICT. Other teachers share the same experience. They report that they had trouble to understand the change at the beginning (Orange 218-222; Pungwe 152-156; Lualaba 145-149; Mania 306-312) as they were required to teach in a way which is different from how they learnt (Vaal 143-152). But in the end, they were convinced by some results in terms of students' outputs (Pungwe 152-163; Mania 52-60; Kafue 129-131; Ruvubu 48-52; Sanaga 210-216; Mania 52-60) and outcomes (Mania 317-331; Kunene 211-220; Kwango 168-171; Ruvuma 136-142). Therefore, they experienced a change of attitudes to students as they

do not consider them as passive actors anymore (Orange 111-113; Oba 48-53; Vaal 229-236; Sanaga 201-211), rather they are associates in-class activities and they can perform independent learning under the guidance of a competent teacher (Vaal 229-236; Ubangi 161-163), who triggers their interest for learning (Sanaga 117-122). As a result, teachers report a change in their teaching practice where they see their task currently consisting not of transmitting the knowledge as it was before but rather organizing the learning of students (Okavango 30-36; Ubangi 314-320; Sanaga 117-125; Orange 17-22).

This type of *functional understanding of change as human capital investment-oriented* highlights the idea that teachers approve and support change in schooling. The teachers of this type claim that the current system of learning makes a difference when they compare it to what they enjoyed in their time. They acknowledge that the current curriculum with its associated teaching approach offers possibilities for relevant and effective learning. As a result, they make efforts to adapt to the new system by engaging in learning about it and pinpointing its downside as areas of improvement. Consequently, convinced by change results, teachers report that they have started changing their practices and attitudes to both teaching and learning.

Teachers' relation with the changing environment: Optimism and high expectations on education

The type of *functional understanding of change as human capital investment-oriented* underscores a recognition by teachers, of the challenges associated with the current changing environment. Teachers of this type make it clear that they hold an optimistic stand as the following statement from Ngolo shows.

"The future is promising because young people are educated and they are motivated to learn they will make use of the knowledge they got at school and they will make a big difference to the future society in that regard I can say that the best is yet to come" (Ngolo 96-99).

The interviewed teacher is optimistic and sees a bright future ahead. She bases her optimism on the confidence she has in education. By looking at how education is currently organized, she can't hide her eagerness to see what the future will look like. Sanaga (222-224) holds the same view as he argues that the current educational system will produce effective leaders of society. Other teachers shared their attitudes in this regard as well. On

the one hand, they find the current period to be a good and favourable time where knowledge and competencies matter the most (Ruvubu 112-113; Shangani 330-332; Volta 162-165). On the other hand, they see an environment which is challenging and littered with all kinds of temptations and distractions, especially for the youth (Zambezi 139-154). They find the time very demanding in terms of knowledge, skills, competencies and virtues (Ruvubu 102-107; Volta 162-165; Mania 249-250; Akagera 107-113) but they keep the faith as it is highlighted by Okavango in the following statement:

“So the current daily life is challenging but education can help people to cope with it successfully” (Okavango 93-94).

Okavango sees education as a source of solutions to the questions associated with a daily challenging life. From the perspectives of teachers of this type, education is credited with the power to help the youth rise above challenges associated with the current challenging environment (Awash 76-78; Kwango 185-192; Zambezi 122-124).

In sum, teachers recognize the challenging nature of the current changing environment. Though acknowledging that the environment is good and favourable as it offers plentiful learning opportunities; they find it unsafe for the youth, as well, since it is littered with different kinds of distractions and temptations for them. On that account, teachers argue that education can help the youth to deal with the current environment by equipping them with critical thinking competencies and instilling a sense of virtue into them.

Challenges to change

Though giving uncompromising support to change, teachers have elaborated on challenges. They don't consider identified challenges as hindrances to change; rather they consider them as areas of improvement where efforts need to be oriented for success. On that account, they point out three main concerns.

First, these teachers acknowledge a lack of a clear understanding of change. To this end, Volta sees a gap on the side of teachers when it comes to change:

“Additionally, let me say that there is always a gap between educational policy planning and execution I mean staff located at the bottom level who are educational policy implementers are not empowered enough to... let me say that they

don't have a clear understanding of what needs to be done hmmm" (Volta 365-368).

The interviewed teacher makes a differentiation between two levels of change agents including change makers and change implementers. On the one side, he points to decision-makers who plan change; and on the other side, he looks at the bottom level where he finds teachers who execute change. He says that teachers are expected to implement change, however, he finds them not empowered enough to meet the requirements of the change as they lack a clear understanding of it. Some other teachers share the same belief with the claim that teachers lack the requisite competencies to implement the new curriculum (Vaal 137-146; Bandama 598-601). On that account, Kwango dares to say that, as things stand, "no teacher can claim the plausibility of their practices vis-à-vis the expectations" (234-238).

Second, teachers see the issue of a lack of English proficiency as another challenge to be addressed for the sake of change success. The following statement from Songwe underlines this understanding:

"They changed the curriculum with the main tenet of the new curriculum being that students must be actively involved in their learning I mean they have to participate actively in their learning but if you get in class you find out that this so-called participation of students is thwarted by a number of challenges including the issue of language I mentioned above you know with the new curriculum teachers don't transmit the knowledge to students rather the latter must do research and find content by themselves but the lack of proficiency in English stands as a hindrance between student's efforts and the knowledge he/she wants to grasp and as a result teachers have to do everything for students the former do research for them they prepare summaries for them and they explain everything to them to be honest we are still in a system where teachers are at the centre of teaching-learning process teachers are more engaged in class activities than students and this is the opposite to what is suggested by the new curriculum" (Songwe 260-272).

The interviewee acknowledges that the new curriculum promotes students' independent learning. They are expected to be more actively engaged in class activities. Students being responsible for their learning is reportedly the principle underpinning the new curriculum. However, the teacher finds a challenge to integrate students due to their lack of language proficiency in English as the language of instruction. As a result, teachers come back to the way of teaching, where students are kept shy and passive by their lack of language proficiency. That challenge has been underlined by other interviewees including Oba who finds the issue of the language to be "a serious barrier between students and knowledge" (127-136). Shangani (311-319) finds it a waste of time when teachers decide to

speak only English in class as students do not follow and ultimately teachers end up repeating everything. Teachers have language problems as well (Pungwe 230-232; Vaal 160-169; Ubangi 23-27). Volta makes it clear that teachers cannot feel comfortable and self-confident when they are required to teach in a language which they did not use as a medium of instruction in their learning time (60-67).

Third, teachers blame the lack of change-enabling facilities which they find as another challenge to pedagogical change.

"You go in class you make the introduction of the topic and you ask students to go and learn independently through their own research I mean you give students enough latitude for them to learn by themselves so that is a change and the hard of it is the lack of learning enabling facilities I mean you ask students to do research yet they don't have access to the internet so how do you want them to proceed? How can they manage when they don't have even any radio set at home let alone internet facilities?" (Sankuru 118-124).

The teacher underlines the lack of means for the self-learning of students. She is aware that students' independent learning is mainly enacted through their research on the Internet. However, she wonders how students will work independently when they don't have access to the internet. The same concern has been raised by Tana (159-176) who says that some students don't have access to electricity in their homes. Other interviewed teachers join in to share their worries when it comes to the availability of change-supporting facilities. They acknowledge that the new curriculum and associated teaching approach are very demanding in terms of requisite technological devices and other resources (Shangani 145-148). However, they find it poorly resourced (Volta 97-106; Ubangi 38-41; Zambezi 394-402). Consequently, they state that there is still a long way to go to achieve the needed independent learning as students keep relying on their teachers to organize the use of available facilities (Shangani 147-155).

Teachers identify threefold challenges which hinder the implementation of the new curriculum and associated pedagogies. Those challenges include teachers' lack of a clear understanding of change, the lack of English proficiency on both sides of teachers and learners and a shortage of change-supporting facilities.

4.3 Summary of the chapter

This study was undertaken to investigate the perceptions of teachers on change in schooling. In this chapter, the results of the study are summarized.

After an iterative process of inductive and deductive analysis of the data; six criteria emerged from the field data through abductive reasoning (chapter 4.2.1). Those include the purpose and aim of change, the nature of change, the perceived aspects of change management, the perceptions of the teachers' position in schools, teachers' relation with change (their relation with both changes in schooling and a changing environment), and teachers' perceived challenges to change.

Through an abductive process, supported by an interpretation group, three ideal types of teachers' perceptions about change in schooling emerged. Those ideal types are (1) an instrumental understanding of change as policies-oriented for a stable society (chapter 4.2.2.1), (2) a vacillating understanding of change as context adaptation-oriented for integration into a global world (chapter 4.2.2.2) and (3) a functional understanding of change as human capital investment-oriented for a knowledge society (chapter 4.2.2.3). In the following paragraphs, a summary of the description of each ideal type is given in an ascending way when it comes to their likelihood to promote the change in line with the quality of education.

Type 1: Instrumental understanding of change as policies-oriented for a stable society

This ideal type of *instrumental understanding of change as policies-oriented for a stable society* is characterized by a mechanical understanding of change. There is a recognition of a variety of changes in the educational system as expanded access to education, the structural organization of the system, the shift of the language of instruction, the reorganization of teaching subjects, the change of the school calendar, the new regulation of promotion and repetition protocols and the awarding system of higher learning scholarships. The purpose of the change is conceptualized as helping to fulfil official policies initiated in the framework of national economic and social transformations. There is a perception of a top-down flow of changes which are designed by decision-makers and land on teachers as prescriptions, instructions, policies or recommendations to be quickly executed with no or little time to get updated about the new move. The communication about the change process is claimed to be done in a one-way, vertical descending channel and the role of teachers in change is reportedly limited to a mere execution of changes.

Teachers find their position in school and society at large being devaluated in different respects. First, change is associated with an invasion in teachers' decision-making - thusly interference with their work - not only by people from the educational hierarchy but from other non-educational sectors as well. Second, new educational policies and learner-centred teaching approaches are considered as threatening teachers' freedom to exercise their power and their prerogative to transmit knowledge to students. Third, the general environment in which the school operates is seen as not favourable to teachers' position in the school setting and society. Change is viewed as a factor accountable for a sense of disappointment prevailing among students and their parents on account of lack of or low prospects of getting jobs after the completion of studies. Consequently, teachers consider that they have to deal with demotivated learners who lost interest in learning as they keep wondering what and why they learn.

Teachers display a variety of attitudes to change in schooling including the trivialization of changes, resistance and manifold criticisms. They make efforts to adapt to change just by compliance because they want to keep their jobs and they need to make sure that the teaching goes on. Teachers do not ostensibly change. They show pretence for the sake of obedience to the hierarchy. As far as the surrounding environment is concerned, this ideal type recognizes the fast change and sees this as challenging and very demanding. Ideas of technological development and the global world are considered to be the drivers of social and moral decay which the society is currently experiencing especially among the youth. Teachers insinuate that they relate to the challenging environment with pessimism as they lost hope for the future. Passivity and inertia are their responses to the challenges brought about by the current environment. There is a sense of lack of innovation and reliance on the government's efforts. Identified challenges to change are the age of the teachers (elder teachers are reluctant to change), the intensification of the teachers' work (the existence of additional dispensable duties which are considered as a burden and time thieves) and poor coordination of change on the side of the decision-makers.

Type 2: Vacillating understating of change as context adaptation-oriented for integration into a global world

The ideal type of a *vacillating understating of change as context adaptation-oriented for integration into a global world* is distinguished by its recognition of change as a necessity in the current time; however, teachers look at the change with uncertainty as they keep questioning its mechanisms and doubt about the potential results of change. The purpose of the change is perceived as an adaptation to the requirements of the changing environment and as compliance with international binding obligations. Aspects which have been mainly affected by the change are claimed to be interpersonal relationships and sources of knowledge which are currently diverse. Ideas of awareness of children's and students' rights associated with their entitlement to freedom, youth exposure to technology, community's drop-out of educational responsibilities account for the deterioration of interpersonal relationships as currently experienced in the school setting. A diversity of sources of knowledge is another change which has happened in the education system. A variety of learning possibilities are available; however, teachers keep questioning students' potential to leverage them. This ideal type considers the dynamics of a changing environment as the main drivers of change in schooling. The change is carried out and spreads out through interactions with the surrounding environment.

As far as the position of teachers is concerned, there is a perception that the change brought about a shift of power balance to the benefit of the students in the classroom. Teachers' power has been reduced while students gained much of it. They see a different generation of students who show a variety of unfitting behaviours like addiction to social media, copying standards from other contexts, the lack of respect for teachers and elderly people, a sense of fearlessness, greediness, the lack of commitment to learning, little consideration of education and a general luxury-orientedness. They are referred to as an 'after genocide generation'; they are claimed to be open and able to find new role models and sources of inspiration not only in their physical but in the virtual vicinity as well thanks to the use of social media as mediated by the latest technological development. They are entitled to much freedom which they abuse to the extent of harassing and victimizing their teachers in different ways. There is a claim that the new teaching approach contributes to that status of af-

fairs, as well, by putting students at the centre of class activities in a context where teachers do not enjoy the monopoly of knowledge. To deal with tricky students, teachers adopt a careful, fearful and careless attitude.

In this type, there is a recognition of the changing environment which keeps reshaping all dimensions of social life and the order of human basic needs. The use of technology has, de facto, proved to be a basic requirement for daily life activities. It is against this backdrop that teachers relate to change by adapting their mindsets and practices to the new requirements and accommodating it, though, with scepticism. While recognizing that the current environment is very demanding, the type concedes that teachers stay optimistic and keep high expectations of education's potential to achieve a significant breakthrough. However, they look sceptical when it comes to the prospects of the current education system (by looking at how the education is currently organized) to prepare the youth for the uncertain future lying ahead.

Though change is considered a necessity, some challenges likely to hinder its success are identified. Those include that teachers perceive students' little consideration of education (in the eyes of teachers, they don't value education as they should), owing to the idea of free education coupled with perceived poor educational returns and teachers' image which keeps diminishing over time. Similarly, teachers perceive current students as displaying characteristics (such as a lack of respect, a missing purpose of life, a lack of commitment to learning and insubordination) which are not seen as conducive to efficient learning. Another challenge is seen in the lack of digital literacy on the side of the students. The latter live in a digital era with all entailed facilities but they squander possibilities available to them and misuse them. This stands as a challenge to change and some teachers go as far as to consider the internet as a source of distraction and acculturation due to its misuse. A third challenge is in line with teachers' access to technological facilities. They claim that computers and technological devices are well kept in schools' shelves, but teachers don't enjoy using them as they wish.

Type 3: Functional understanding of change as human capital investment – oriented for a knowledgeable society

This ideal type of a *functional understanding of change as human capital investment-oriented for a knowledge society* stands out by its consideration of education as a key factor for the prospect of a bright future ahead. The

main aspects which are affected by the change are claimed to be pedagogy and the use of technology in schools. The introduction of the new curriculum is considered to be the flagship of changes which happened in the educational system recently. The new curriculum ushered in a host of teaching methods which are brought under the same umbrella of learner-centred teaching approach. The new teaching approach is facilitated by the use of technology. Therefore, the main purpose of change in education is perceived to be the betterment of learning to achieve the heights of a knowledge society. To this end, change aims at the transformation of the learning process by shifting students' roles from passive to active responsible learners with a significant move from rote memorization-based to experiential learning enacted through the application of knowledge and research. Teachers recognize their involvement in the change process to the extent of claiming the new curriculum to be their own product.

This type considers that the understanding of the position of teachers has changed in the course of change. The idea of almighty teachers who command terror and fear to students is remembered as a part of the past. Teachers are no longer considered as unique sources of knowledge and masters of content. Rather, their role is understood as currently consisting of designing, triggering, checking and supporting the learning by providing requisite support, and facilities and creating a safe and friendly environment which is conducive to students' independent learning. Teachers see a shift of power balance in the classroom, but they don't consider it as a loss on their side, but rather a restructuring of their role to the benefit of learning. The idea of knowledgeable teachers who deal with weak students has reportedly been replaced by the idea of cooperation between both sides for the promotion of learning.

This type is characterized by teachers' approval and support of the change in schooling coupled with their commitment to change their practices and attitudes. They relate to change by domesticating, internalizing and ultimately taking ownership of it. Their approval evolves in four stages: First, they show a positive attitude to change as they recognize its relevance. For instance, they acknowledge that the new curriculum and associated teaching methods are meant to foster the development of competencies on the side of students. Similarly, they say that the provisions of the new curriculum meet the requirements of the current labour market. Second, with their positive attitude to change, they engage in the process of learning about change through in-service teacher training, school-

based mentorship and independent learning. Third, they commit themselves to a reflective implementation of change. Actually, they don't see perfection in the change, they find flaws in it, but they see it as areas of improvement. Fourth, convinced by the results which they see in the shape of students' outputs and outcomes, they take ownership of the change and change their practices and attitudes.

The type recognizes the challenging nature of the current changing environment. Though acknowledged as good and favourable, in a way, as it offers plentiful learning opportunities; the environment is considered (by teachers) to be unsafe for the youth, as well, since it is littered with different kinds of distractions and temptations for them. This type addresses the current environment and the future with an optimistic perspective and high expectations for education. The organization of the education system is promising and, by looking at existing challenges, there is a strong belief in education when it comes to the provision of appropriate solutions. There is a belief among teachers that education can make a difference by helping students to develop competencies and virtues which are requisite in the current demanding environment. The type does not miss to reveal threefold challenges which are seen as hindrances to efforts to change. Those include the lack of clear understanding about change on the side of teachers, poor English proficiency and poor provision of change-enabling resources.

The description of the three types as generated in this study is concisely recapped in the following table. It displays the qualities which describe the types based on the six criteria which emerged from field data and the three types.

Table 2: Synthesis of the description of ideals types

 Types			Instrumental understanding of change as policies-oriented for a stable society	Vacillating understanding of change as context adaptation-oriented for the integration into a global world	Functional understanding of change as human capital investment-oriented for a knowledge society
Criteria		Sub-criteria			
Aim/ Purpose of change			Fulfilment of official policies, emulating other educational systems	Adaptation to the requirements of the changing environment; complying with international binding obligations	Improvement of learning
Aspects of the educational system affected			Access, structural organization, language of instruction, School calendar, teaching subjects, students' promotion, scholarship awarding	Interpersonal relationships, behaviours and sources of knowledge	Curriculum, teaching methods and use of technology in schools
Perceived aspects of change management		Forces driving change	Obedience to the hierarchy	Dynamics of changing context and global world	Need to achieve a knowledge society
		Communication & acquisition strategies	Top-down change, one-way communication, teachers' individual efforts	Interaction with the surrounding environment; adoption of a pressing change	Learning through in-service teacher training and mentorship
Perceptions of teachers' position in schools			Invasion of teachers' influence zone, a decrease of teachers' values, teachers' power taken away	The shift of power balance associated with a loss of teachers' self-reflected power	Reduction of teachers' power to the benefit of learning (teachers are organizers of learning)
Teachers' relation with	Teachers' reaction to	Teachers' attitudes to change	Criticism, belittling change, resistance to change	Approval with scepticism	Approval with a commitment to change

	change in schooling	Teachers' role in change	Executing instructions landing from above	Adopting change	Active participation & reflective implementation
		Commitment to change	Adaptation by compliance and pretence	Adaptation by accommodation	Taking ownership of needful and fitting change
		Teachers change	No significant change on the side of teachers	Attempts to adjust to the change	Commitment to change of attitudes and practices
	Relation with changing environment		Pessimism, passivity and reliance on the government	Appreciation and uncertainty	Optimism and high expectations of education
Challenges			Age of the teachers, additional dispensable duties, poor coordination of change	Devaluation of education, youth poor digital literacy, teacher's lack of access to technological devices	Lack of clear understanding of change, poor English proficiency, poor change resourcing

Source: Primary research data

5 Education Change in a Changing Environment: Discussion of Perceptions of Rwandan Teachers

This study was undertaken to understand the perceptions of teachers on the change in schooling. The leading research question is “What are the perceptions of Rwandan teachers on change in schools amid a changing environment?”. The following chapter discusses the findings of this study. Firstly, I summarize the study including its findings (5.1). Secondly, the findings are discussed in line with the discourse on the topic (5.2).

5.1 Summary

The study is contextualized in Rwanda, a country which experienced a variety of changes in education owing to its dark history and subsequent desire for a socio-economic transformation (chapter 1). Education change is a ubiquitous topic in Rwanda, yet it is a field which is still to be researched. This study contributes to the effort to fill that knowledge gap. The guiding research question was: “What are the perceptions of the Rwandan teachers on the change in schooling amid the changing environment?” The question was operationalized in three specific research questions: (1) How do Rwandan teachers perceive the change in schooling? (2) How do Rwandan teachers perceive the changing environment? (3) What challenges do teachers perceive in the change in schooling? The study gives room to teachers from different streams of secondary education in Rwanda to share their perceptions on changes in the educational system.

It is a qualitative, hypothesis-generating study (chapter 3), where data were collected by the use of semi-structured interviews (chapter 3.2.1). To pick the sample, criteria related to teachers’ personal, educational and professional backgrounds were considered (chapter 3.3). The point of data saturation was reached after carrying out 30 interviews with teachers of secondary education. The interviews had been transcribed (chapter 3.4.1), translated from Kinyarwanda to English, coded and inter-coded (chapter 3.5.1). The management of data, through content analysis, consisted of intensive, extensive and iterative work where inductive and deductive coupled with abductive reasoning (chapter 3.5.2) allowed to reach a typology of perceptions of change by teachers.

In the following paragraphs, a summary of the results is presented in line with the guiding research questions starting with the specific questions and ending with the main guiding one.

5.1.1 How do teachers perceive the change in schooling?

First, the research question of the perceptions of teachers about change in schooling is answered : (a) teachers perceive change and differentiate emergent change and reactions by the Government, (b) teachers perceive change by shared criteria, (c) teachers perceive change in three different ideal types, (d) one type of perception of teachers is not conducive to dealing with change in education, (e) change is perceived between prescriptivity and self-directivity, (f) a strong perception of prescriptivity merges with a sense of helplessness and (g) a perception of self-directivity and teachers' agency supports change management on the side of the teachers

a) Teachers perceive change and differentiate emergent change and reactions by the Government

This research shows that teachers in Rwanda perceive the dynamic nature of the education system. They identify and elaborate on changes that happened in the system which are brought under two main categories. On the one hand, there are mandated top-down changes which include mainly the shift of the language of instruction, the expansion of access to education, the curriculum change and associated teaching methods, the readjustment of subject matters, the structural organization of the school system, the teachers' accountability system, the new scheme of students' promotion and transition from one grade or level to another and the use of ICT in schools. On the other hand, teachers perceive emergent changes which include the diversity of sources of knowledge, the challenging conduct of students (youth behaviours), the deterioration of interpersonal relationships and a continuing decline of the position of teachers in schools.

From the perspectives of teachers, the mandated changes are planned by top decision-makers and are taken down to teachers to be implemented in schools. Those changes are perceived as Government's efforts to adapt to its socio-economic transformation agenda and reactions to the international binding educational orientation. Teachers' reactions to these changes are shaped by their understanding of the purpose of the change and the expected outcomes. For instance, compliance and appropriation

are reactions of teachers depending on whether the aim of the change is perceived to be the fulfilment of official policies or the improvement of learning. In addition, teachers perceive emergent changes as results of the changing world. Those are changes which are happening in the school system, they affect its organization, they are experienced within it but they are beyond any control within the school and the whole system. Teachers react to those emergent changes by adopting attitudes of adaptation and accommodation.

b) Teachers perceive change by shared criteria

This study reveals some criteria which crosscut the perceptions of the change by the teachers. Those criteria include the perceived purpose of the change, affected dimensions of the educational system and aspects of change management as perceived by teachers. Regarding change management, an emphasis is put on the perceived drivers of the change, communication in the change and change acquisition strategies. Other criteria which emerged from the data are the position of teachers in school as shaped by the change, teachers' reactions to both the change in schooling and the changing environment and perceived challenges to change. The criterion of teachers' reaction to the change in schooling brings forth ideas of perceived teachers' attitudes to change, their perceived role in and commitment to the change as well as their change. In their capacities of cross-cutting features, those criteria mediate the comparability of the data.

c) Teachers perceive the change in three different ideal types

Based on teachers' perceptions of change, the study reveals a differentiation of their understanding of the change in three ideal types. The first type is *an instrumental understanding of change as policies-oriented for a stable society*. This type represents a mechanical understanding of the change where the latter is seen as aiming to contribute to the fulfilment of official policies the purpose being to reach the heights of a stable society. The type emphasizes mainly the structural reorganization of the system which is associated with the reduction of the power of teachers in schools and their absence in the change design. Teachers of this type comply with the change for the sake of obedience. They are aware of the changing environment and they look pessimistic when it comes to their relation with it. The second type is a *vacillating understanding of change as context adaptation-*

oriented for integration into the global world. This type considers the changing environment as the force driving the change in education. Teachers see the change in the shapes of the diversity of sources of knowledge and the deterioration of social relationships. Adaptation by accommodation and appreciation coupled with uncertainty represent their respective mechanisms of relating to the change in schooling and the changing environment. The third ideal type is *a functional understanding of change as human capital investment-oriented for a knowledge society.* The type underscores the change in pedagogy and the use of ICT in schools to improve learning. Teachers of this type appreciate the change, they recognize their involvement in the process of change and they are committed to change. They look at the changing environment with optimism and they entertain high expectations for education to rise above contextual challenges.

Moreover, the study reveals that teachers' perceived responses to the change are shaped by their understanding of it as consolidated in those three ideal types. For instance, the type of *teachers' understanding of change as policies-oriented* is associated with the ideas of obedience and compliance as the adaptation strategies. For the type of *teachers' understanding of change as context adaptation-oriented*, the adaptation is shaped by the idea of accommodation while the type of *teachers' understanding of change as human capital investment-oriented* is associated with adaptation strategies in the shapes of domestication and appropriation. Additionally, the change-related professional development mode is reported to be done through individual efforts for the first and second types, transmission and collaboration models (in-service teachers training, school-based mentorship and professional learning communities) for the third type.

d) One type of perception of teachers is not conducive to deal with change in education

This study indicates that, while the types of *understanding change as context adaptation-oriented* and *human capital investment-oriented* promote the change in education, the type of *instrumental understanding of change as policies-oriented* is unfavourable for the change. The former two underline teachers' perceptions of the necessity of change and their flexibility when it comes to change adoption. As far as the latter is concerned, it shows another perspective by highlighting teachers' consideration of change as undertaken to fulfil the purposes which are not directly linked to the work

of schools. This ideal type is rather associated with a sense of conservatism, cynicism, resistance to change and an instrumentalization of education through the change leading to a narrow instrumental understanding of the purpose of education as only serving external motives while disregarding its intrinsic value.

e) Change is perceived between prescriptivity and self-directivity

This study shows the mechanisms of the change which are at play in the system as they are perceived by teachers. On the one hand, the type of *instrumental understanding of change as policies-oriented* highlights a sense of prescriptivity which is associated with the top-down mandated changes initiated and designed by decision-makers and channelled down to teachers to be implemented in schools. Teachers see schools responding to change by implementing a host of strategies for the sake of accountability. For instance, schools adopt strategies like extra-time teaching and coaching for candidates for national exams, practice exams and students' self-learning organizations with teachers taking turns to monitor it. The perceived goal of those efforts is to ensure students' success in national exams in a context of a competitive educational environment. On the other hand, the type of *functional understanding of change as human capital investment-oriented* spotlights the existence of internal mechanisms initiated to support learning and domesticate top-down pedagogical changes. Those include mutual support among teachers, internally organized in-service teacher training and the idea of school networking. Those initiatives are context-specific and they are organized in an autonomous and self-directive way.

f) A strong perception of prescriptivity merges with a sense of helplessness

Teachers perceive themselves as being inundated with manifold mandated top-down changes while, from their perspectives, their case is not considered by the change. They don't see a change in their salary, they find their power being taken away and their autonomy thwarted by the level of standardization in the system and they don't feel empowered enough to implement the change. Specifically, teachers of the *instrumental understanding of change as policies-oriented* perceive a strong sense of

prescriptivity in the change which affects their position. They see an ongoing decline of their position in schools on the grounds of the continuing rise of the awareness of the rights of students, on the one hand, and the introduction of the teaching methods which put learners at the centre of the class activities, on the other hand. Moreover, teachers perceive themselves as recipients of the change with little or no room for input.

g) A perception of self-directivity and teachers' agency supports change management on the side of the teachers

This study shows a perception of teachers' comfort in the change especially in the type of *teachers understanding of change as human capital investment-oriented*. This type highlights a sense of self-directivity and teachers' agency in the change. Teachers acknowledge their involvement in the design of top-down changes. Again they take a position vis à vis the change, they critically engage with the change implementation, make some independent decisions about the change and take some responsible actions meant to domesticate the change and support learning. For instance, teachers use the mother tongue, in the course of the teaching, because they feel it helps students to learn, they provide individual support and they invest at their own costs in the search for teaching aids. Teachers of this type see the consideration of their change agency coupled with their empowerment as a condition for the change and they wish more space for their professionalism.

5.1.2 How do teachers perceive the changing environment?

This study brings two answers to the question of teachers' perceptions of the changing environment. Firstly, they perceive the changing environment and they see challenges associated with it but they differ when it comes to their expectations. Secondly, they entertain a vicinity-bound perception of global challenges.

a) A differing perception of the changing environment between optimism and pessimism

This research demonstrates that teachers perceive the challenging changing environment, however, they differ in their expectations. Teachers of

the *instrumental understanding of change as policies-oriented* entertain a pessimistic view of the changing environment. They perceive a threat to moral order as they see experiences of social and moral decay among the youth which come as a result of their exposure to technology and cultural encounters. This pessimism is associated with a sense of passivity and inertia when it comes to teachers' perceived responses to the challenges of the changing environment. The other two ideal types differ from the first one by their optimistic perspective on the changing environment and expectations placed on education. For instance, teachers of the type of *vacillating understanding of change as context adaptation-oriented* consider challenges associated with the changing environment but they keep faith in educational potentials to fix that status. Their counterparts of the type of *functional understanding of change as human capital investment-oriented* appreciate the learning opportunities associated with the current environment. While they recognize that the changing environment is unsafe for the youth, they view education as promising as far as the development of requisite competencies to deal with it is concerned. Teachers of both types perceive the environment as demanding in terms of competencies. However, they are not explicit when it comes to the kinds of competencies which are needed

b) A vicinity-bound perception of global challenges

This research shows that teachers' perceptions of global challenges are shaped by what they see in their physical vicinity. It was revealed that their discussions about global issues are limited to what they directly experience in their neighbourhood like the scarcity of resources and poverty associated with it, the climate change and wars with entailed consequences like the orphanage, moral bankruptcy and social inequalities. They refer to what they call "former time" as a point of reference like when they say that people including their parents had enough fixed assets and they were well-off which is not their case at the moment.

5.1.3 What challenges do teachers perceive in the change in schooling?

The study has identified threefold challenges which, in the eyes of the teachers, are likely to hinder the attainment of the outcomes of the planned change. Those are (a) the challenges perceived as inherent to

teachers, (b) the challenges perceived as inherent to the school system and (c) the challenges perceived as inherent to the context.

a) Challenges perceived as inherent to teachers

This study shows three challenges perceived as inherent to teachers. First, the age of teachers is viewed as a challenge. No teacher claimed in an interview that his/her age is a challenge for change. Rather, this has been explicitly underlined by referring to others. The held view is that elder teachers delayed adopting and adapting to the changes like the curriculum change, the shift of the language of instruction, the use of ICT in schools and the quality of the current youth. Second, this study shows that teachers report the lack of a clear understating of change as a hindrance to the implementation of changes like the new curriculum, for example. Third, poor English proficiency, on the side of the teachers, is seen as a challenge to the improvement of learning as targeted by the change.

b) Challenges perceived as inherent to the school system

As already stated, teachers see the educational system experiencing a host of top-down changes. The latter are designed at the central level by top decision-makers and handed down to the teachers for implementation. The study at hand has identified three challenges which, in view of the teachers, are attributable to the system.

First, changes are poorly resourced. There is a claim that ambitious changes are undertaken but enabling financial resources are missing or they delay reaching schools. While teachers acknowledge efforts already done in terms of the dissemination of the schools' and technological infrastructures, they argue that there is still a lot to be done to make the change a reality. Second, there is an issue of teachers' access to technological facilities. Teachers admit the existing will to equip schools with technological tools through the policy of smart classrooms which will enhance teaching and learning. However, they don't expect much from that move as long as they get access to technological devices including computers only while at school. By this, teachers hint at the necessity of having their own computers which they enjoy independent use of. Third, teachers' workload is perceived to be heavy and intensified with additional dis-

pensable duties which, in the teachers' eyes, are meant to serve just administrative purposes. For instance, they report that they are required to keep several administrative documents which, from their perspectives, do not necessarily have something to do with the improvement of learning.

c) Challenges perceived as inherent to the context

This research shows that teachers perceive a devaluation of education along the process of change. For them, the school system operates in an educational unfriendly environment where students, parents and teachers look disappointed and the surrounding people consider education, the school, and the teaching job with contempt. Education continues to lose its value among its main actors. Therefore, teachers view a significant gap between policymakers who design policies and changes, on the one hand, and policy implementers who consist of demotivated teachers and students together with disappointed parents, on the other hand.

5.1.4 What are the perceptions of teachers on change in schooling amid the changing world?

This study highlights a link between teachers' perceptions of change in schooling and their perceptions of the changing world. The generated typology indicates that teachers perceive the changing world in three types: (1) as a threat to the social order, (2) as associated with a need to adapt to a global world and (3) as associated with a need to become a knowledge society. This understanding of the changing world shapes the way teachers view change in schooling. First, the perception of changing world as a threat is associated with an understanding of the educational change as a disturbance of the existing stability and social order. Conservatism and resistance are teachers' reactions to the change. However, the highly prescriptive nature of the change makes them adopt a compliance and pre-tence attitude when it comes to the implementation of the educational change. Second, the necessity of adaptation to the changing world as highlighted by the second type, leads to the perception of the change in schooling as an imperative. Teachers see the global society and they consider the necessity to be part of it through education. However, to achieve this mission, education needs to change. Teachers accommodate and adapt to the change. Third, there is a view of knowledge society as a need in the changing world. The knowledge society requires competencies and skills. The

changing world is appreciated as it offers manifold learning possibilities and the education provision needs to change to fully leverage the available learning facilities and contribute to the goal of knowledge economy in a knowledge society. The change is appreciated, and teachers invest in learning about the change and take ownership of the change.

5.2 Discussion of the results: Teachers' perceptions of educational change

As mentioned earlier, the main aim of this study is to investigate the perceptions of teachers on change in schooling. Teachers from secondary education shared their perceptions about change happening in the school system through semi-structured interviews. In the following section, the results of my study are discussed in line with the discourse on educational change. The discussion is done in three steps. First, I present the striking results which I found worth to be discussed. Second, I go through the discourse and highlight what comes out of the existing literature in line with my findings. Third and lastly, I highlight the contribution of this study to the discourse.

Amid the multiplicity of the results of this study, three main aspects captivated my attention and are worth to be discussed by their potential contribution to the discourse on educational change in the perceptions of teachers. First, the positioning and agency of teachers in the context of school change is reflected (chapter 5.2.1). The point, here, is to see how teachers exercise their agency in a setting where they are inundated with multiple changes affecting the school system. Again, educational changes are happening in a dynamic environment characterized by quick changes and uncertainty. In this regard, one may wonder about the orientation of schooling in that particular setting. Therefore, the second discussion takes me to the theory of school improvement where I confront the idea of change in schooling with that of educational relevance (chapter 5.2.2). Similarly, bearing in mind the landscape of the current and future environment, I did not miss to touch on the theory of Globalization. To this end, the third discussion brings to the fore the meaning of educational change in the particular environment of Globalization (chapter 5.2.3). The idea here is to reflect on the position and role of education in a context marked by globalizing processes.

With these three points of the discussion, the study contributes to the science by addressing the fundamental questions of how to change and why to change.

5.2.1 How to change: Teachers' positioning and agency in the context of change

No matter the nature of the change happening in schooling, teachers have a key role to play. This study shows that, despite the limitations (professional, structural and material) faced, teachers push hard to exercise their agency in the change. This study shows three ways of teachers' positioning which, in a context of a changing educational system, orchestrate their sense of agency: compliance (chapter 4.2.2.1), accommodation (chapter 4.2.2.2) and appropriation (chapter 4.2.2.3). The following discussion elaborates on the rationale, factors and drivers of this agency.

a) A three-fold sense of agency

This study shows that, despite a variety of limitations, teachers manage to exercise their agency in change. Their perceptions indicate that they are not mere receivers of change, rather, when confronted with the emergent or mandated change, they make sense of it and they take position and action towards the change. From the perspectives of this study, teachers make sense of the change by conceptualizing its purpose at micro and macro levels and its outcomes on the side of students. The typology of teacher's understanding of the change as developed in this study highlights specific perceived purposes of the change including fulfilment of official policies, integration into a global world and achieving the goal of a knowledge society. Based on this sense-making, teachers' positioning takes the form of either compliance (teachers question change, find an alternative to it, implement it against their will or adopt the strategy of pretence), or accommodation (teachers alter their frames of references and adapt to the change) or appropriation (teachers accept the change, learn about it and implement it enthusiastically).

Previous studies have underlined the ideas of resistance (Nguyen & Bui 2016 p. 88; Vähäsantanen 2015 p. 16-18; Achinstein 2006, p. 52; Lasky 2005, p. 913; Datnow et al. 2005 p. 31), adoption (Robinson 2012, p. 2), adaptation (Robinson 2012, p. 2), supporting (Vähäsantanen 2015, p. 16-18; März et al. 2013) and advancing reform efforts (Datnow et al. 2005, p. 31) as different types of manifestation of teachers' agency in regard to

educational change. Robinson (2012, p. 14-15) underlines that, confronted with a new policy, teachers' exercise of agency is driven by a desire to reconcile the requirements of the policy and the need to maintain their own beliefs and values about teaching. While agreeing with him, my study shows in addition, that teachers' personal interests (like the wish to keep their job) and a sense of responsibility towards students are of key significance in this process, as well. This is another aspect of their sense-making of the change. They keep reflecting on what the change means for their professionalism and their students and they position themselves accordingly. The idea of teachers' positioning in a context of change is not new in research. A study revealed four forms of teachers' search for meaning: assimilation, accommodation, toleration and distantiation (Luttenberg et al. 2013). Those forms of the search for meaning translate efforts that the teachers make to find a balance between their frames of reference and those of the reform (Luttenberg et al. 2013, p. 305). This study has the merit of showing teachers' positioning at the level of reflection but it did not touch what it means for of the practice. In this regard, the results of my study underscore that the three identified positioning - compliance, accommodation and appropriation- are associated with three respective senses of agency: pretence, adaptation to/adoption of change and enthusiastic commitment to change.

b) Sources of teachers' agency in change

The results of this study indicate that teachers report drawing on a variety of sources to exercise their agency in change. They mainly rely on their subjective theories about good teaching and learning which also draw on their former teaching and learning experiences. Similarly, the surrounding socio-political context contributes to shaping their choices and actions towards change.

The literature shows that agency is not something intrinsically inherent to teachers, rather it is a quality they develop in the course of the change (Imants et al. 2013, p. 324). Teachers' agency in the change is not something which is fixed, rather it can change over time as a result of their engagement in negotiation about the change (Luttenberg et al. 2013, p. 306; Vähäsantanen & Eteläpelto 2011, p. 29; Day & Kington 2008, p. 19). Beliefs, values, identities and collegiality play a role (Nguyen & Bui 2016, p. 101; Biesta et al. 2015, p. 629; Priestley et al., 2012; Daly et al. 2010, p. 381; Day et al. 2005, p. 574). This means that the agency is individually and socially resourced (Vähäsantanen 2015, p. 20-22, 35).

Consistent with this literature, my study highlights the role of beliefs and social networks in the process of negotiation about change and the exercise of agency. On the one hand, teachers refer to their subjective theories about teaching to take individual actions regarding the change and, on the other hand, they mobilize their social capital to react to change. They mainly do it by sharing best practices and teaming up to advocate for the consideration of their ideas in the change process as well as indicating the identified gaps in the mandated policies (chapter 4.2.2.3).

There is a recognition of the role of school contexts and the leadership climate in shaping the teachers' sense of agency with better-resourced schools offering better possibilities to respond to the change than vulnerable ones (Towers et al. 2022, p. 80). Leadership matters when it comes to establishing the setting for teachers to exercise their agency. For instance, the literature shows a host of leadership-related factors which work against the idea of teachers becoming agents of change (Villegas & Lucas 2002). Those include but are not limited to the hierarchical and bureaucratic nature of the educational system, the time pressure, the insufficient opportunities for collaboration with others and the resistance by those in positions of power (ibid., p. 24). My study shows that the role of leadership in shaping the change agency is broad and is not limited to mere resourcing. There is a sense that leadership at both micro and macro levels account for the exercise of agency by teachers. The role of leadership is wide and multifaceted. It goes as far as to shape teachers' adaptability to change, as well, as they keep reflecting on the meaning of their responses to the change in regard to their entire careers (chapter 4.2.2.1).

The discussion above brings to the fore the idea that teachers draw on a variety of sources to exercise their change agency. Their selves and sociality matter, but, the system can help them by providing schools with good leadership and promoting the establishment of conducive social networks.

c) Students' learning as the driving force of teachers' agency in change

On a related note, the findings of this study underline that in a context of manifold changes, teachers' exercise of agency is shaped by their understanding of good teaching and learning and oriented to the student's learning as rewarded by their performances. Students learning seems to be the driver of teachers' positioning and decision-making. For instance, teachers of the type of *instrumental understanding of change as policies-ori-*

ented tend to stick with the former curriculum on the ground of their belief that it is the most conducive to learning (chapter 4.2.2.1). Similarly, teachers of the *functional understanding of change as human capital investment-oriented* report their shift from a sense of reluctance to an enthusiastic implementation of the change of curriculum upon their conviction that it is associated with good learning results (chapter 4.2.2.3). There is abundant evidence of this idea of teachers' consideration of students' learning as a basis for their agency across their narratives about their relation with specific changes like when they reported that they thrive for the reorganization of subject matters to fit students' expectations for the sake of the relevance of their learning. Elsewhere teachers claim to use the mother tongue in teaching when confronted with language difficulties on both their sides and students' sides (chapter 4.1). This practice is embedded in their beliefs that good teaching happens when students understand the content taught. Even what seems to be a kind of resistance to some changes is an attitude which is grounded in their conviction that the status quo is better than the new practice when it comes to the student's learning (chapter 4.2.2.1).

In this regard, the study expands and supplements the existing literature by providing more insights about the teachers' sense of agency. The findings are consistent with previous studies which suggested that the agency of teachers is more or less focused on students (Pantić et al., 2022; Van Der Heijden et al., 2015; Day et al. 2005). For example, it was revealed by the study that teachers tend to exercise agency to provide holistic support to students in which their learning and well-being are an integral phenomenon (Pantić et al. 2022). Central to these findings is the importance that teachers place on the change in students' well-being (ibid.). Elsewhere, Lasky (2005) found in another study, a kind of immense satisfaction and motivation to continue to teach in unconducive conditions on the side of the teachers who saw that change was associated with the students' social, emotional and academic development. Similarly, a change in the teachers' definitions of and attitudes to change was found to be associated with a variety of factors like feasibility for students and practicability for teachers (Imants et al. 2013). In the same vein, Schmidt and Datnow (2005, p. 959) report the rise of teachers' comfort and trust levels upon seeing the benefits of the reform for their students. This link between teachers and their students is strong and deep as evidence has shown that principles of care and commitment to students' learning and achievements are at the core of situated identities that teachers mobilize

in response to new challenges and changing circumstances and they transcend transitory agendas of imposed change (Day et al. 2005, p. 575).

A connection was reported between teachers' commitment to professional learning and students' learning. Teachers' commitment to professional learning seems to be a result of a process of reflection which focuses on doing better for the children for whom they were responsible (Day et al. 2005, p. 574). All these findings are in harmony with the model of teacher change which was developed by Guskey. The model posits that "significant change in teachers' attitudes and beliefs occurs primarily after they gain evidence of improvement in students learning" (Guskey 2002, p. 383). The discussion above underlines that teachers' decisions and actions, in the context of the changing school system, are driven by their concern for the learning of their students. Moreover, my study shows that teachers rely on their subjective theories about teaching and learning as lenses to look at the change. Therefore, teachers' understanding of students' good learning matters if ever their agency needs to be harnessed. When this understanding gets clearer, it may lead to adequate decisions and actions which promote learning in a setting of change implementation.

With all this in mind, this study contributes to the theory of teachers' change agency by pointing out that, in the context of the changing system with mandated and emergent changes affecting schooling, teachers are concerned with the change results in terms of students' learning outputs and outcomes. Despite a host of limitations encountered, they exercise a reactive agency which, drawing on a variety of sources, manifests through the process of sense-making, the choices made, the reflective implementation of the change and the commitment to the promotion of students' learning. Their sense-making gives rise to three positioning including compliance, accommodation and appropriation which, in turn, respectively trigger action in the shape of pretence, adaptation and enthusiastic commitment to change.

5.2.2 How to change: Change of schooling for a relevant education

The findings show that the period covered by this study is a time when the school system in Rwanda has gone through a variety of changes. Based on teachers' perceptions about these changes, this study came up with a three-fold typology of understanding of change by the teachers and every ideal type depicts the nature of the change which happened in the system

and the purpose of it from the perspectives of the teachers. The first ideal type highlights a host of initiatives of the system's restructuration coupled with the access expansion and the shift of the language of instruction as changes which were undertaken and implemented for the sake of fulfilling official policies (chapter 4.2.2.1). The second type points to the changes in the shape of interpersonal relationships and the diversity of sources of knowledge which emerged in the framework of the changing environment as driven by the desire to adapt to it (chapter 4.2.2.2). The third type underlines some pedagogical changes which have been initiated to improve learning (chapter 4.2.2.3).

By looking at the change situation, the findings of this study explicitly suggest a dominance of administrative changes over pedagogical change. This means that, from the teachers' perspectives, the system has significantly changed at the structural and organizational levels in Rwanda while the teaching practice and learning are less touched. This situation is seen as problematic in a context where the findings reveal a wide recognition of challenges and complexities associated with the current daily life and uncertain future. The following discussion focuses on the examination of the current change model against the requirements of the environment and comes up with suggestions for improvement.

a) Limitations of administrative and human capital-oriented changes

The findings of this study underscore the need for teaching improvement as a *sine qua non* of life in the current complex environment. Despite a lack of a clear elaboration on the side of teachers, they acknowledge the existence of this complexity as they see it through the challenges they experience in their physical vicinity. The study confirms, by this, the international common agreement among scholars, educationalists and policy-makers on the necessity to overhaul the delivery of education (Zhao 2015; McWilliam & Haukka 2008; NACCCE 1999). There is a wide recognition, among scholars, that we are living in an era of rapid change marked by cultural and technological disruptions (Mishra & Mehta 2017, p. 6; Buckingham Shum & Deakin Crick 2016, p. 6; Craft 2005, p. 11). It is a time of complexities and uncertainties (OECD 2021; Buckingham Shum & Deakin Crick 2016, p. 7; Craft 2005, p. 11) where a host of mega-challenges not only face humanity but even threaten life on the earth (OECD 2021, p. 4; Orr 2004). It is a time when knowledge expands at a breathtaking pace (Darling-Hammond 2012, p. 22), job markets experience tur-

bulences (Buckingham Shum & Deakin Crick 2016, p. 7) and natural resources decline as the current generation is not only consuming the available resources, rather it takes away the life chances of the next one as well (OECD 2021; Hugo 2016, p. 11). In this particular time, owing to the migration, young people are called to live in pluralistic societies marked by multi-cultural, multi-faith and multi-linguistic features (De Souza 2008, p. 27). My study, given the context of Rwanda, outlines in addition to the cultural encounters effects of virtual contacts as facilitated by the ongoing digitalization. Digitalization is found to be associated with different forms of distractions which capture the youth's attention. For instance, teachers of the type of *understanding change as human capital investment-oriented* see the youth exposure to digital technology as a risk to their lives and the safety of Rwandan society.

Additionally, the results of this study point to the recognition that the current organization of the school system does not live up to the requirements of the current challenging environment. The related disappointment of students, parents and teachers is the climax of this conjuncture. Here, I join other scholars who have already identified shortcomings and limitations in the school systems especially when it comes to their potential to address the complexities of the current changing environment. This seems to be an underestimated fact for developing countries as shown in this case of Rwanda. There are claims that schools do not adequately prepare students to meet the demands of contemporary society (Plate 2012, p. 1311), the world has changed a lot but the school has remained the same over time (Kereluik et al. 2013, p. 128). Designed more than a century ago, formal education is a product of a particular era serving a different generation (Zhao 2015, p. 131; Darling-Hammond 2012, p. 21-22; NCEE 2007, p. 7; NACCCE 1999, p. 27). Schooling as it is shaped is not fitting (Darling-Hammond 2012, p. 22), it leads to the disappointment of parents, students and society in general (Prensky 2001). It is criticized for transmitting irrelevant knowledge emphasizing theories, and technical efficiency over values, consciousness, and conscience (Orr 2004, p. 8).

Therefore, there is a pressing call for change. From the perspectives of the results of this study, it was underlined that policymakers took the lead and overhauled the school system through a variety of administrative sporadic reforms which dominated the change landscape indeed. Changes were initiated to fast-track the social-economic transformation agenda and to develop a strong human capital ready to integrate the competitive global labour market. The discourse on educational change finds

those kinds of changes unfitting especially when it comes to the fulfilment of the educational purpose to prepare the youth to face the complexities of the current changing environment (Zhao 2015; Darling-Hammond 2012; Fullan 2011).

To address the identified quality gap, attention was shifted to the pedagogy with the introduction of the standardized competency-based curriculum coupled with a special focus on the learner-centred teaching approach and the use of ICT in education. However, the findings revealed, the perceived readiness of teachers to implement those changes is open to question. Yet, a system of tight inspection and comprehensive testing was put into motion to check the enactment of the reforms and hold teachers accountable for their performances. Again, those pedagogical changes are perceived to be driven by the desire to prepare the youth for the fiercely competitive global market. This shows that the change agenda in the context of this study has followed the pattern of waves of educational changes which have been happening in the school systems worldwide (Yong Zhao, 2015)(Zhao, 2015). They are especially human capital development-oriented and accountability-based reforms which are driven by neoliberal economic policies (OECD 2021, p. 4; Zhao 2015). The centralization of education delivery is a related feature of those reforms (Burnard & White 2008, p. 675) and, thereby, takes away teaching responsibilities from teachers and leads to the leading to the de-professionalization of teaching. Teachers in my study talk of interferences in their work. They see education being victimized by a policy discourse which posits that education has a big role to play in ambitious socio-economic transformation agenda and is a reliable gateway to the wished knowledge economy. It is learnt from the literature that those aforementioned reforms have often been found to be unfitting when it comes to the need of shaping an appropriate school system in the current challenging time (Zhao 2015; Darling-Hammond 2012; Fullan 2011). They led to lower levels of success (Darling-Hammond 2012, p. 32) as they are steered by wrong drivers (Fullan 2011) and Zhao (2015) went as far as to label them as suicidal, misguided, past-oriented reforms (ibid. p. 129-130) and sees the world being more at risk than before those reforms (ibid. p. 131). This discussion shows that the complexities of the current changing environment require a different education paradigm. Administrative reforms alone do not have the potential to take the school system to the needed heights of educational power to respond to the complex and uncertain environment. Sim-

ilarly, human capital-oriented reforms do not provide satisfactory responses to the requirements of a challenging environment. It is the responsibility of adult generation-policy makers and teachers- to design and deliver a type of education which fits the needs of the current youth as they are shaped by the environment they live in.

b) The relevance of knowledge matters

The findings of this study show that some teachers look at the current and future environment with a pessimistic worldview. For them, life is challenging, the young generation is differently acculturated and technology is polluting the social order. Pessimism and uncertainty are two main attitudes which have been respectively identified by the first and second ideal types when it comes to the teachers' relation to the current changing environment (chapters 4.2.2.1 and 4.2.2.2). The third type hints to a certain optimism on the side of teachers and this optimism is linked to the high expectations they have about education (chap 4.2.2.3). The second and third types make it explicit that education is a *sine qua non* for any bright future to come. Teachers see education as a solution worth to be relied on to tackle encountered and looming challenges; however, this hope fades away when they look at the current delivery of education.

More than a century ago the English philosopher Spencer (Hirth 1871, p. 372-373) raised the question "What knowledge is of most worth"? It has been revisited by every generation (Mishra & Mehta 2017, p. 6; Hugo 2016, p. 11) and I find it more relevant today. In a context where challenges abound, uncertainty looms and all this happening in a knowledge-saturated environment, it makes sense to reflect on the new orientation to give to schooling. With all respect to the progress thus far achieved, the point is that the focus must be shifted now to teaching and learning practices. Students need to be trained to face the complexities of the environment. My assumptions join Darling-Hammond (2012, p. 22) when she talks of powerful learning but I rather call it relevant learning where students are helped to develop problem-solving and innovation-oriented competencies coupled with a sense of responsibility and values. To respond to this concern, a competency-based curriculum was newly introduced and TVET education is emphasized in Rwanda. However, teachers in my study shared their experiences and complaints about dealing with demotivated students who lost interest in learning as they keep wondering what and why they learn. Similarly, teachers of the *vacillating understand-*

ing of change as context adaptation-oriented and ones of *functional understanding of change as a human capital investment-oriented* advocate for further changes in the educational system. They see deficits and inadequacies when they look at the potential of education, as it is organized today, to address the current and looming complexities of the changing environment.

The idea of the necessity to develop competencies, as emphasized in this discussion, is not new in the literature. Rather the discourse on educational change gets enriched by highlighting the need to shift the change focus from administration to students' capacity building. There is a growing body of evidence which found competency development as a fitting teaching approach in the current and future demanding time (Buckingham Shum & Deakin Crick 2012; Darling-Hammond 2012; OECD 2012). The project named the "Definition and Selection of Competencies (DeSeCo)" initiated by OECD back in 1997 produced a framework of three broad categories of competencies currently needed by students including the abilities to use tools interactively, interact in heterogeneous groups and act autonomously (OECD 2005, p. 5).

Elsewhere, committed to the critical exploration of the literature on the 21st-century knowledge framework, a group of researchers came up with a threefold typology of the knowledge in a 3x3 (three times three) model of 21st-century learning. The knowledge to be conveyed to students are foundational knowledge (what students need to know), meta-knowledge (how we act on the knowledge we have) and humanistic knowledge (the value we bring to knowledge and action) (Kereluik et al. 2013). Each type involves three subcategories representing three competencies. For instance, in the type of meta-knowledge, we find problem-solving & critical thinking, communication & collaboration and creativity & innovation as subcategories (p. 130-131). The study concludes that foundational knowledge keeps its place even in contemporary times and educational systems remain based on disciplinary knowledge and they will continue to be so in the foreseeable future (Kereluik et al. 2013, p. 133). This model was considered by Mishra & Mehta (2017) as experts' perspective. As far as the perspectives of practitioners are concerned, teachers were asked to rank these different forms of knowledge. They rated meta-knowledge like problem-solving, critical thinking and creativity as the most important while foundational knowledge like content knowledge and cross-disciplinary knowledge were ranked as the least important. Humanistic knowledge like life and job skills, cultural competencies, ethical,

emotional awareness and the like ended up in the middle of the ranking (Mishra & Mehta 2017, p. 13). They closed their study by suggesting the necessity to find the right balance between those domains of knowledge (ibid., p. 16).

All in all, there is a growing number of scholars and educationists suggesting the development of high-order competencies as a fitting approach in the current time. Creativity and innovation have been pinpointed as the requisite competencies to be developed (Gallagher et al. 2012, p. 147; Maisuria 2005, p. 148) and the need to position thinking as an explicit outcome of curriculum has been expressed (Gallagher et al. 2012, p. 135; Craft 2005). Higgins (2009) suggests the idea of experiential education as an appropriate alternative where students are expected to develop a sense of critical reflection and responsibility in a context where they are put in touch with the reality of real everyday life. There is a wide acknowledgement that the needed education cannot be achieved in the current landscape dominated by vertical accountability, tightly packed curriculum and high-stakes tests (Newton & Newton 2014; Cheng 2010; NACCCE 1999). All things considered, there is a need to see empowered students enjoying powerful learning enacted by empowered teachers (Darling-Hammond 2012, p. 25-30).

While agreeing with the above discourse on the necessity of competency development, I highlight the idea that this approach must be embedded in humanistic and liberating views of education. Students need to be educated for the sake of their self-actualization and becoming responsible citizens who live harmoniously with both neighbours in the physical and the virtual communities as well as the nature. This requires capabilities on both sides of policymakers, who can scrutinize and understand the setting of the changing environment, and practitioners who are knowledgeable and able to accompany the youth in their journey of relevant learning.

The findings of my study make it explicit that there is still an urgent need to bring change to the school system. Consistently, the literature advocates for a competency-oriented education with a special focus being put on the development of high-order competencies. The study at hand advances the discourse by suggesting that education relevance is a well-timed target of the change. In a complexity-laden environment, where society is faced with uncertainty and fear of the future, education is credited with the potential to offer solutions. To this end, the young generation is

charged with a heavy burden of hope and survival of society. In this regard, of key significance for the youth and society in general is the learning which equips them with competencies to deal with complexities. My argument is that students' relevant learning coupled with meaningful teachers' professionalization is of key importance in the change efforts.

5.2.3 Why to change: Changing education in the era of globalization

The educational changes which are brought to the fore by this study are happening in the context of the changing world. Globalization stands as the key feature of the change. It shapes different dimensions of human life including education. Results of this study show that teachers are aware of globalization and they acknowledge that it is one of the key factors driving changes in the school system. They elaborate on the contribution of technological development and the associated growth of knowledge in the development of the global world. Two perceptions about Globalization emerge from the results of this study. On the one hand, Globalization is perceived as a threat to the existing cultural and moral order. In this regard, Globalization is perceived as something coming or imposed from outside and teachers can't help but comply with it. This perception gives rise to a sense of protectionism of the cultural heritage and rejection of the culture moving alongside the globalizing processes. On the other hand, Globalization is perceived as an immutable reality which is accepted and people can't help but adapt to it. The teachers find it very demanding in terms of requisite competencies for survival. However, they are not clear when it comes, first, to the global issues restructuring the global order and, second, to the competencies requisite for such adaptability. The following discussion will focus on three sub-aspects: (a) the redefinition of the purpose of education, (b) the fitting pedagogy and (c) the pressure of global educational policies and their mitigation.

a) Taking the educational purpose beyond the human capital orientation

This study shows that teachers perceive a deliberate reorientation of education throughout the change. As discussed earlier, this sense-making is a part of their change agency. They find some specific changes aligning with specific objectives which use education as a tool to achieve a specific national or global agenda. By way of illustration, two types of teachers'

understanding of the change highlight the perception of instrumentalization of education along the change. The first type underscores the conceptualization of the change in the framework of fulfilling the socio-economic transformation agenda undertaken by the government of Rwanda. The third type of understanding of change highlights the centrality of human capital development as the main focus of the change with the ultimate goal being to achieve the objectives of a knowledge economy. Previous evidence underline how developments associated with globalization have been influencing educational policies and practices all over the world (Paine et al. 2016; Mundy 2008; Canoy 1999). Globalization is credited with fostering neoliberalism and competition in the world of economy. In this regard, education is considered to be a factor of the global economy and a means to secure global competitiveness (Paine et al. 2016; Tierney 2004, p. 14; Priestley 2002; Carnoy & Rhoten, 2002). In the framework of the global economy, knowledge is considered as the highest commodity and, with this, nations have little choice but to increase their investment in education (Canoy 1999, p. 82). There is a claim that Globalization is associated with a fundamental change in the discourse that frames education which reflects, in the eyes of Priestly (2002, p. 132), the penetration of education by the international business discourse. Educational analysts see a predominant hand of the human capital theory in projects of educational change. There is an assumption that human beings are reduced to the status of income-producing agents (Zajda 2020, p. 293; Priestley 2002, p. 134) in the competitive economy where the techno-determinist paradigm is dominating and replacing the humanistic view of education (Zajda 2020, p. 293). In the same vein, Priestly (2002, p. 133-135) sees education as being thusly reduced to a political tool for achieving economic and political objectives. Consistently, the findings of this study point to increasing use of education as a tool for economic development and prosperity. However, it reveals another dimension of this tendency as education is changed to serve social and political purposes, as well, like national reconstruction and reconciliation among others. This simplistic view of education has, in the eyes of Tierney (2004, p. 18), tremendous consequences as it is associated with the reduction or loss of democratic and cultural aspects of education.

My study highlights further consequences of the instrument-based orientation of education. There is a sense of disappointment among teachers, parents, and students as they are not satisfied with the educational outcomes. The instrument-based orientation of education narrows down

the view of education which, in turn, has an impact on the pedagogical practices. The lack of consideration of the broader humanistic and liberating view of education coupled with pedagogies of transmission deprives education of its edge when it comes to students' learning for their self-actualization. As a result, education produces job seekers who do not find jobs after their studies. In line with this argumentation, the economic view of education is not an adequate driver of educational change as human beings cannot be defined by their economic dimension only; rather they have personal, social and cultural goals as well (Špolar, Vida A. Mohorčič, & Holford, 2014). An alternative view is offered by Reimers (2006, p. 276) who underlines the necessity to develop values which promote global civility. For him, the contemporary inattention to global and civic purposes of the schools translates into educational reforms attempting to improve education while undermining its basic relevance (p. 279). Consistently, Sahlberg (2004, p. 66) advocates for education to take on new challenges by giving priority to teaching ethics and a sense of global responsibility which go beyond the bounds of the knowledge economy.

From a different perspective, teachers of the type of understanding of change as *context adaptation-oriented* align their perceptions about the changing education with the idea of changing world. They have high expectations of education in the current challenging context and, on this point, they are joined by their counterparts of the type of understanding the change as *human capital investment-oriented*. However, they are not convinced of the potential of the current school system to help to address the complexities associated with the changing environment. They claim that both the change in the environment and the change in the quality of the current students require a different type of school system. The existing discourse shows that life in the globalized world brings new challenges which put new responsibilities on schools' shoulders (Edwards & Usher, 2008; Sahlberg, 2004 Canoy, 1999). With this concern, Scheunpflug and Asbrand (2006, p. 35) see a reshaped education - global education - as fitting to the requirements associated with life in the world society. From the perspectives of authors (2006, p. 35), global education is rooted in "human development and social justice" models and it aspires to help learners develop adequate competencies for life in a world, complex and uncertain society. Global education represents a shift in regard to how people understand education and it entails the redefinition of its purpose and review of its delivery (Nyiramana & Niyibizi 2020).

In line with the discussion above, the results of this study highlight the need to change education to align it with the requirements of the changing world. Teachers of the type of *instrumental understanding of change as policies-oriented* perceive the changing world as a threat but they don't reflect possibilities for the breakthrough. Their counterparts of types of vacillating understanding of change as context adaptation-oriented and *functional understanding of change as human capital investment-oriented* perceive it as challenging and uncertain but they keep faith in education. Teachers have experienced a variety of planned and unplanned changes inundating the educational system and they understand the global nature of those changes and global forces at play. Of course, they find domestic forces like local history, for instance, playing a key role in shaping the course of educational change, as well. Teachers elaborate on the globalizing processes, they point to global issues, yet their discursive argumentation appears to be limited especially in scope as their narratives revolve around their physical vicinity. Their views do not demonstrate a reflected connectivity between the local and the global. There is a recognition, in their perceptions, of the predominant hand of the market forces and human capital theory in change efforts. The literature explored points to the universality and normativity of that theory in the change (Zajda 2020, p. 293; Priestley 2002, p. 134). However, this change orientation does not sound convincing in the current time and the thirst to change is far to be quenched. That being said, a new move is expected to make a difference. There is a need to reflect again schooling and take it to new heights to make it ready to confront emerging challenges. Life in a global world requires people-global citizens- to have global competencies acquired through global learning. Even the nature of the current young generation does not fit in the patterns of the existing pedagogy as discussed below.

b) A different young generation requiring a different pedagogy

From the pedagogical point of view, my study is basically concerned with two issues: the identity of students and the orientation of learning as perceived by teachers. Primarily, students have been identified as a different generation, the “after-genocide generation” and addiction to technology coupled with a sense of autonomy are the main features of their behaviours in the understanding of the interviewed teachers. They have different sources of knowledge, and all of this makes them appear, in the eyes of their teachers, as stubborn and disrespectful (chapter 4.2.2.2). On an-

other note, my study indicates that the pedagogical response to the changing world, thus far undertaken, has been the introduction of the competency-based curriculum coupled with learner-centred teaching methods and the use of ICT in education. However, the findings show, the required competencies to implement those changes leave a lot to be desired.

It is learnt from the literature that in the globalized world, students are conceptualized as global citizens or consumers (Edwards & Usher 2008, p. 53) who need to be lifelong learners to cope with the fast-growing and changing nature of the knowledge (OECD 2020, p. 63; Edwards & Usher 2008 p. 129; Cheng 2000, p. 170-171). Today's and future students, by their nature "net generation" (Edwards & Usher 2008, p. 129), require a different organization of their learning. There is a growing emphasis on flexible pedagogies which diminish hierarchies and authorities and challenge power relations in school settings. Classroom walls break down and the existing structures and practices like what Edwards and Usher (Edwards & Usher 2008, p. 54) refer to as "spaces of enclosure (books, classroom and curriculum)" are called into question. This opens up new possibilities of learning which are all the more diverse, purpose-driven, self-imposed and self-monitored (*ibid.*). To make this possible, there is a need to reconfigure the teacher-student relationship where all can be experts given the abundance and availability of knowledge, to involve other professionals and actors in the teaching activity and to stabilize the place of cyberspace as a learning space (Edwards & Usher 2008). In a nutshell, the literature shows evidence of pedagogical practices for the current specific environment. Yet the findings of this study reveal a gap. While acknowledging the pedagogical aspect of the ICTs and the existence of alternative sources of information, teachers stick, in their perceptions, to traditional teacher-centred education. They recognize the importance of the learner-centred approach to teaching, but they are in discomfort when they see the freedom that the new approach confers to students. Teachers find this limiting their comfort enjoyed when exercising authoritative pedagogy. They see a change in the quality of students – a different generation- but they don't reflect what it means for their learning. They want the students to behave and learn the way they did in their learning time. Their situation is worsened by their lack of requisite competencies to leverage the facilities offered by the ICTs in teaching and learning.

These findings are consistent, to some extent, with what is already known from the existing literature. There is a common assumption

among educational scholars that, despite all efforts already made in education, change seems to have had little or no effect on the educational delivery in classrooms (Carnoy & Rhoten 2002, p. 2; OECD 2001, p. 64; Canoy 1999, p. 14). What this study brings to the fore is that the status quo in teaching and learning is a result of a lack of a clear understanding of change by teachers associated with limitations in their understanding of the changing world. This hinders their reflections about fitting pedagogical responses and translates into a sense of conservatism when it comes to teaching approaches. This discussion points to the existence of a discrepancy between the theory and the practice. The former advocates for flexible pedagogies to meet the needs of autonomous students while the teachers, in this study, stick to their authoritative practices. To put it in another way, there is a recognition of a different young generation with different characteristics and values requiring a different pedagogy. However, teachers (from another generation) are not yet ready to organize it in a conducive way. A change of mindset on the side of teachers is a *sine qua non* for the change of educational delivery in a changing world.

c) Transcendence of global policies: Pedagogy to mitigate the pressure

This study has revealed the presence of international policies in the change agenda. For instance, teachers report that the idea of inclusion in education comes from the international binding commitment to universal education for all. Similarly, they pretend that some policies are deliberately borrowed from other contexts, especially industrialized countries. Again, there is a recognition of other policies and global culture which freely flow along the dynamics of the changing world.

The literature shows how globalization has altered the understanding and practice of educational change. The power of the nation-state has been reduced (Paine et al. 2016, p. 731; Torres 2002; Canoy 1999, p. 51) or redefined (Verger et al. 2018, p.8-9; Monkman & Baird 2002, p. 497-498). Policy migration is a common practice (Verger et al. 2018, p. 2; Priestley 2002, p. 123) and the field of educational change has been inundated by various actors who influence and determine the course of educational reforms (Monkman & Baird 2002, p. 503). Those policies exercise pressure on local educational systems through mechanisms of imposition, harmonization, dissemination, standardization and adoption (Verger et al. 2018, p. 18). This study shows two mechanisms of acquisition of global policies at the local level, as perceived by teachers. Either policies are adopted as an act of submission and capitulation or they are borrowed as a result of

deliberate decision-making. Besides official policies, teachers identify a global culture which freely flows along the dynamics of Globalization. Some aspects of global policies and associated culture are perceived by teachers as a choc which they respond to by adopting a conservative attitude. There is a growing assumption, in the literature, that seeks to equate the cultural aspects of Globalization with Westernization, or Western cultural imperialism (Triwiyanto et al. 2019, p. 166; Verger et al. 2018, p. 4; Spring 2008, p. 334-336; Edwards & Usher 2008, p. 69; Mundy 2005, p. 5; Tierney 2004, p. 9; Monkman & Baird 2002, p. 497-498; Marginson 1999, p. 23). This understanding of Globalization as the propagation of Western culture is associated with an attitude of resistance from locals. A glimpse at the findings of this study shows that teachers feel discomfort with the changes brought about by the changing environment, especially in its cultural dimension. They see social and moral order being subverted by the growing cultural encounters mediated by exposure to technologies and they condemn a kind of acculturation which they see among the youth. There is a kind of conservatism in their narratives where they firmly stick to the idea of national and cultural identities. This conservatism is deep in the sense that teachers value and want to keep their cultural heritage, but they don't reflect on how to do this in a globalized world. This case is not a specificity of teachers in Rwanda as the literature shows the existence of resistance to uniformity manifesting in different shapes among different communities across the world (Vulliamy 2010, p. 4; Carnoy & Rhoten 2002, p. 6; Torres 2002, p. 376).

This discussion shows that "local" and "global" are two dimensions which need to be reflected in educational change projects in the current context of a changing world. Cheng (2000, p. 159-162) in his theorization of schooling in the era of globalization suggests that students and learning should be individualized, localized and globalized. A study on the openness of Rwandan teacher education reveals the predominance of Rwandocentrism as the focus of education and highlights the need to reconcile the nationalistic and cosmopolitan profiles in education (Niyibizi et al. 2023). Evidence shows that both trends are not exclusive, rather they strengthen each other (Gunesch 2004; Bowden 2003). Education in its transformational power can facilitate the needed reconciliation. Similarly, there is an acknowledgement that education has the potential to mitigate the pressure of global policies. For instance, while recognizing that globalization is an existing unavoidable reality, Cheng (2000, p. 89) sees education as a mitigating solution to the negative effects of globalization. He

suggests efforts to be made to maximize positive effects but minimize the negative impact of globalization on the current educational reforms (ibid.). Teachers in this study emphasize this power of education to sort out the harshness associated with Globalization. For instance, teachers of the *type of understanding change as human capital investment-oriented* credit education with capabilities to help learners develop competencies and virtues requisite to deal with the changing environment (chapter 4.4). Pedagogy gets a deeper consideration in this respect; it plays a determining role when it comes to the maximization of local relevance (Cheng 2000, p. 161), mediating and domesticating global policies (Edwards & Usher 2008, p. 72). Achieving the right balance between the local and the global is a necessity which requires pedagogy to promote critical thinking as a means and an end of education delivery. This study points to competency-based education with associated learned-centred teaching methods and the use of ICT in schools as pedagogical initiatives which have been thus far undertaken. That move should not be considered as an end in itself, rather as a starting point for a long journey of change which triggers further reflections regarding how the new teaching approach is implemented and how available technological facilities are leveraged for learning. In essence, some points need to be highlighted: primo, the school system is penetrated by global policies which come in different shapes. Secondo, the school system responds to global policies by passively complying with them or engaging in an active process of borrowing. The ideas of mitigation and reflective domestication of global policies are missing. Tertio, a critical pedagogy can play a significant role when it comes to the mitigation of global pressure, yet this pedagogy is still to be part of class activities.

The whole discussion brings to the fore three striking aspects: First, Globalization is a reality which is having and will continue to have an impact on schooling. This study underlines that teachers do perceive the complexity of change through globalization and internal pressures. Second, there is a polarization of viewpoints when it comes to the culture which comes along with globalization. Some teachers in my study insist that globalization is spreading an alien culture which intends to smash the local cultural order while others focus on the possibilities offered. Third, education is perceived as a force to be relied on to tackle all complexities associated with globalization. However, there is a sense that the current organization of the education system makes it look powerless in front of the globalizing processes and unready to prepare and take the

youth to the next levels. This study identified gaps when it comes to teachers' understanding of globalization as their perceptions of the current challenges do not grasp their global dimension. Henceforth, this study contributes to the discourse by unveiling that, in a glocal conjuncture, the cultural maintenance (local embeddedness) and social transformation (global openness) functions of education are important aspects of the change efforts especially in the Global South. On another note, this study stands out by highlighting the teachers' knowledge about global issues as a dimension to be taken into consideration by the change for the sake of the students' relevant learning in the current and future environment shaped by globalizing processes. Their discourse about Globalization is restricted in scope as it revolves around what they see in their physical vicinity and this raises the question of the amount of discursive resources they have at hand. Therefore, their consideration in the change agenda is a necessity.

6 Implications

The study at hand was meant to investigate the perceptions of teachers on educational change in Rwanda. The guiding research question was framed at the beginning as follows: What are the perceptions of Rwandan teachers on change in schooling amid the changing world? (chapter 1.3). To find the answer to this question, teachers were given room to express their perceptions about the change they experience through semi-structured interviews (chapter 3.2.1). The collected data were analysed through an iterative process of induction and deduction which led to abductive reasoning as the final step of meaning-making of the data (chapter 3.5). The results were presented by portraits, criteria and a typology (chapter 4) and discussed in line with the existing discourse on change in education (chapter 5). In this chapter, I want to highlight two points: (1) implications for further research and (2) recommendations for the practice of school development in Rwanda.

6.1 Implications for further research

Educational change is a widely discussed topic in Rwanda but it is a field which is yet to be explored. It attracted attention from different actors including decision-makers, teachers and parents but it is less investigated by research. Therefore, it is important to address this gap in knowledge. This study, including its limitations, stimulates further research.

Implications for empirical research

This research explored the perceptions of teachers on the change in schooling amid the context of a changing environment. To expand the breadth of qualitative research, further studies are needed in regard to other target groups like teachers from primary and tertiary education. With their different educational and professional backgrounds their perceptions of change are expected to enrich the discourse through additional perspectives. Teachers' perceptions of the changing environment have been addressed by this study as well. Of importance are their perceptions with regard to specific aspects related to social change, especially generational relations. A qualitative investigation of teachers' and students' perceptions on that topic is needed to shed light on their interrelations in the current environment. In line with this, the question of how the changing

world has affected the behaviours, learning and working patterns of the young generation should get answers. Moreover, this study reveals the ambivalence of teachers' views regarding their perceptions of the changing world. At this point, specific research could address the topic and suggest possibilities of intervention to change their perceptions of social change. Additionally, in this study, I hypothesized that the ideal types of understanding change as context adaptation-oriented and human capital investment-oriented may promote the change while the instrumental understanding of change as policies-oriented may not. This needs to be explored more in quantitative research to highlight the share of each type to advance or thwart change.

Implications for historical research

Education in Rwanda has always been targeted by criticisms that it contributed to the sinking of the country into its dark history. The thing is that regimes in Rwanda have used education as an instrument to shape their political ideology. For instance, there is a claim that education has not only been used to spread divisionist ideology, but it helped to create obedient people and followers who do not think independently. A substantial study on how education has shaped the course of the history of Rwanda through change would be helpful. Again, there has been a strong reliance on a changed education to rebuild the country. To master positive narratives on how change in education has already been constructively shaped and on what to learn from history, a historical investigation of narratives on change in education should be of the utmost significance.

Implications for theoretical research

Theories are important in the process of knowledge generation as they provide a framework for understanding phenomena. This research highlights the specificities of the current young generation as perceived by teachers. They show different characteristics, behaviours and interests. Again the need for relevant learning is singled out as a target of the next change. Questions of how the current youth learns and what they expect from education should get a deeper consideration in research and be checked against existing theories of learning to assess their suitability or trigger the generation of a more polished theory.

Implications for conceptual research

This research has pointed to the predominance of prescriptivity as a mechanism of change in the Rwandan educational system. Teachers respond by adopting a compliance-oriented attitude and exercising a reactive agency. Yet some aspects of a self-directivity mechanism have been identified, as well, through the narratives of teachers. From the perspectives of this study, this mechanism is associated with a strong sense of agency on the side of teachers and can advance change management in a constructive way. Against the backdrop of the changing world, teachers should keep scrutinizing the environment and come up with pedagogical solutions in a proactive way. The conceptualization of schools as learning institutions should set the basis for the enactment of self-directivity as a mechanism of change. Further exploration of this concept in the context of Rwanda should be helpful. Questions to be addressed are: What are available conditions and possibilities to promote this change mechanism? What challenges are expected to hinder the promotion of this mechanism? What types of interventions are needed at individual, school and system levels to foster the use of this mechanism in the change?

Again, the use of ICT in education is an immutable reality and there is no way back about this. Yet, this research highlights ambivalence in teachers' perceptions of the use of ICT in schools. While some teachers see the power of digitalization to boost teaching and learning, others perceive students' exposure to digital devices as a source of distraction. This situation gives a task to researchers to investigate the educational value of technologies in developing countries and provide a framework for understanding how the adoption of technology in schools can lead to more enjoyable learning experiences for students and positive perceptions on the side of teachers.

6.2 Implications for the practice of education in Rwanda

Through the perceptions of teachers, this study has shed light on the practice of change in schooling. It is against this backdrop that some gaps and areas of improvement have been unveiled as well. Therefore, recommendations are formulated and addressed to different stakeholders including policymakers, education providers, school leaders and teachers.

Implications for policymakers

As policymakers are identified as the main actors of the change in the framework of this study, recommendations are addressed to them. Primo, the study has highlighted the perceived top-down nature of changes happening in schooling and the limited role played by teachers when it comes to change design. Based on the literature already explored and the discussion of the findings of this study, I argue that teachers need to be granted more latitude in the process of change. The consideration of the views of practitioners including teachers and head teachers should make a difference in change implementation as they are situated at the last end level of the change management hierarchy.

Secondo, the findings of this study show that the competency-based curriculum, the shift of the language of instruction and the use of ICT in schools are among the significant changes perceived by teachers. Yet the same findings point to a lack of a clear understanding of competency-based teaching, the lack of digital literacies and the lack of English proficiency on their side. Those areas should be significantly considered in initial and in-service teacher training plans. In the same vein, this research has made it clear that teachers' perceptions of the changing world hint at a lack of a clear understanding of global issues on their side; yet this study emphasizes that competent teachers are a *sine qua non* for students' relevant learning in the current challenging time. Therefore, the knowledge of global issues and critical global learning should be integrated into teachers' initial and in-service training as well.

Tertio, this study indicates that teachers perceive a change in the management of the educational system. They see a high vertical accountability system enacted through high-stake measurement tests, inspection and other administrative procedures. There is a need to capitalize on the existing practices and shape those forms of accountability to be perceived as a contribution to teachers' agency. This could be achieved by associating vertical accountability with a sense of constructive feedback and, parallel to it, promoting teachers' horizontal accountability to their colleagues, parents and students as well as to their school vision and mission.

Implications for education providers

By educational providers, I hereby refer to faith-based organizations, private individuals who own schools and the State through its decentralized institutions. Educational providers should use their power to develop teachers' perceptions of change in a constructive way. To do this, churches should provide schools with sermons which empower for change and agency and give hope. Similarly, they should adapt their youth ministry and chaplaincy to the realities of the changing world by offering a less moralistic view to the youth but providing them with empowering perspectives. State decentralized institutions are responsible for resource allocations and educational monitoring at the district level. In this capacity, they should mitigate the feeling of hopelessness by teachers by creating a setting where they feel supported in the process of change.

Implications for school leaders

School leaders play a crucial role in education as they ensure the link between policymakers and policy implementers. A clear understanding of policies is of key significance on their side but they have to keep in their minds that learning is the core business of the school. They need to find a fair balance between transformational, distributed and instructional leadership (OECD 2008) in order to bring relevant changes in schools. In the context of top-down changes, school leaders must make efforts to revitalize the bottom-up channel by taking teachers' inputs and concerns to policymakers in due time.

This study has highlighted a pressing need of overhauling education for the sake of learning relevance. It is the responsibility of the school leaders to create an ethos which fosters the development of high-order competencies among students. In the same vein, as leaders, they have to come up with strategies which are likely to make the school sound like a hub of universal values. Values of human decency should be modelled in school life to help students integrate them into their daily life and take them to their families. To this end, school leaders must oversee the activity of establishing the school's vision and mission where universal values and a 21st century-oriented relevant learning are made explicit. All in all, school leaders have the responsibilities to create a conducive environment for relevant learning in the current challenging time and a promising setting for positive perceptions of change by teachers. To achieve this, the

empowerment of school leaders matters the most. Their training in school management in a complexity-laden time is a responsibility of the State. However, they need to invest in learning about educational changes and the changing world to support teachers shape their perceptions in a constructive way.

Implications for teachers

This study has made explicit some areas of improvement on the side of teachers. Their narratives show a lack of a clear understanding of competency-based teaching and there is a sense in which they need to improve their digital literacy. Similarly, it has been revealed that their knowledge about global issues and what it takes to solve them is open to question. Without losing sight that it is the responsibility of the State and other competent stakeholders to organize their professional development in that regard, teachers should take the lead and invest in a responsible learning to address this gap. In their narratives about the changing world, they recognize that it is associated with manifold learning possibilities. They should leverage available facilities to bridge their knowledge gap and achieve a sense of self-professionalization. Teachers need to reinvigorate their professionalism not only to address the aforementioned gap but to sharpen their agency in change as well. They should take their decisions and actions beyond reactive agency to reflect and come up with appropriate school and classroom-based strategies to engineer a relevant students' learning.

Additionally, this study has shown that the change came with a perceived excessive workload on the side of teachers. On the top of this, their perceptions point to manifold pressures associated with the change like the pressure to cover the curriculum and the pressure to meet the standards of high-stakes tests among others. The good thing is the kind of concern about teaching and learning which has been revealed, through their narratives, as the focus of teachers while exercising agency in the changing and pressure-laden environment. Most relevant in this regard is their decision-making capacity where there is a need to prioritize the learning of students over any other responsibility assigned to them.

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Appendices

Appendix 1: Chronological sequences of educational change in Rwanda since 2000

Year	Changes			Reaction in the discourse
	System level	Teaching level	Society level	
1998	Establishment of TTCs for initial primary school teachers training			Low demands for teacher training, some students doing teachers training while it is not their choice, poor overall quality of students intakes, some TTCs were reluctant to take on teacher training responsibilities, limited commitment of candidates to the teaching career (WB 2011, p. 117)
2000	- Equity in enrolment - Decentralization (JICA p. 40)		Decentralized governance (Ezeanya-Esiobo 2017) Vision 2020 (Knowledge-based economy, human resource development, gender equity in all segment of life National ICT policy	Gender roles and cultural practices are still barriers to enrolment (Nkurunziza et al. 2012, p. 2)
2001			Ubudehe resurrection	
2002	School canteen and food-for-education program in food-insecure districts			
2003	- Compulsory and fee-free primary education - Decentralization of textbook delivery	Substantial adjustments: - Double shifting - Schools are responsible of choice and procurements of textbooks, teachers guides and related-learning materials		- Improved enrolment, more students with learning difficulties and high risk of drop out (WB 2011, p. 164) - Poverty and labour market conditions are still barriers to the enrolment (Nkurunziza et al. 2012 p. 2) - Schools attendance is also determined by parents' education, siblings, place of residence, accessibility of

				schools quality of education (Nkurunziza et al, 2012, p. 3) • Other schooling cost (WB 2011, p. 165) • Heavy workload per teacher • Less contact time by teachers with pupils • Difficulties in individual support ➢ Negative impact on learning outcomes (JICA 2012, p. vii) • Weak foundation in lower primary undermines the learning at subsequent levels (WB 2018, p. 6)
2004	• Reform of TTC curriculum • ECCD component for TTC curriculum • SEN component for TTC curriculum			
2005	Change of academic year			
2006	• Decentralization (JICA p. 40) • Sector education officers introduce in 2012 • ICT in education	Subject grouping	Second phase of decentralization	Decentralization improved service delivery on administrative side (JICA p. 40) Use of ICT as a tool to improve education through fostering students' creativity and critical thinking, developing positive values of democracy (Mukama & Andersson 2007, p. 164) Centralized management of computers at school limits teachers' access and impedes their commitment, motivation and creativity in terms of ICT implementation in classroom practice

				(Mukama & Andersson 2007, p. 164) One way of coping effectively with change at school level is to build on existing positive values like peer teaching (Mukama & Andersson 2007, p. 164) Government's interest in the use of ICT in schools exceeds technical capacity of MINEDUC and the preparedness of teachers (World Bank 2018, p. 7)
2007	Introduction of Nine years basic education (Extension of free education to YBE (JICA; WB 2011, p. 24)	Substantial adjustments		Increase of enrolment but the primary completion rate remains low (WB 2011, p. 2) Gender parity achieved but disparities according to geographical location and income remains (WB 2018, p. 24; WB 2011, p. 88) Rwanda stands out for achieving gender equality both in primary and lower secondary (WB 2018, p. 24) Need of schooling for learning (WB 2018, p. 26)
2008	Establishment of Colleges of education to train teachers for low secondary education Use of Ubudehe categorization to govern the Government education subsidy (Ezeanya 2017, p. 18) Extensive and forward-looking framework of TVET system	- Strengthening TVET - Girls' education - Special education needs - One laptop per child program	EDPRS 1 (2008-2012) Access to education for all, quality education at all levels, equity in education at all levels, Science and technology and ICT in education, promotion of positive values, critical thinking, Rwandan culture, peace and reconciliation, a special focus to quality enhancement and TVET promotion	Lack of vocational commitment among trainees in college of education (WB 2011, p. 119) Teachers professional competence is a key to achieving national aspiration for basic education (WB 2018, p. 34) Ubudehe puts the Government at advantage while putting some students at disadvantage (Ezeanya 2017, p. 18) TVET is becoming an essential part of educational system yet programs taught

				are generally focussed on urban, rather than rural development (Eger 2016, p. 39). Scholars questioning the relevance of change
2009	Establishment of REB to coordinate general education and ensure quality provision. Fast-tracking the policy of 9YBE Change of medium of instruction (English)	English as a medium of instruction Subject specialization in primary education Specialization in TTCs to align their training with teaching in primary education Reduction of core subject on primary education Curriculum adjustments to align with language change Double shifting (WB 2011, p. 6, 166)		Low English language proficiency among teachers (Uwambayinema 2013; WB 2011, p. 61; JICA p. 34) with only 43% of teachers having intermediate level of competence in English (WB 2018, p. 31 citing Clist et al. 2015), existence of clear capacity gap with the rural area being at disadvantage (Assan & Walker 2018, p. 45) Language as challenge to learning (WB 2018, p. 18); science teachers using first language in their teaching (Uwambayinema 2013) Competition between fee-free schools and paying private schools. Despite a marginal better performance, the latter have been losing ground some of them being closed especially in rural area (p. 39) Students are motivated to join 9YBE and 12 YBE (basic education) yet the best performers from those schools are taken to the so-called schools of excellence (Williams 2018, p. 6) Virtually overnight language shift (Eger 2016, p. 36); language change has affected negatively learning outcomes (World Bank 2018, p. 6); Language change has led to learning crisis (Williams 2018; p. 13);

				Teachers teaching in language that they are still learning (p. 37) Heavy workload for teachers (WB 2018, p.38; WB 2011, p. 6) Double shifting fosters access but contributes to poor students' outcomes by limiting time of instruction (World Bank 2018, p. 8) The Govt efforts to deliver education to all are notable, basic education not meeting youth educational expectations, absence of sustained strategy to improve quality, new forms of exclusion along the lines of poor/rich and rural/urban (Williams 2018, p. 13)
2011	Kinyarwanda becomes language of instruction at lower primary education level New generation of challenges			Need of more sophisticated skills to address the new challenges (WB 2011, p.1)
2012	Introduction of Twelve Years basic education Teachers recruitment: exams for those who did not study education			
2013			Economic development and poverty reduction strategy (EDPRS 2: 2013-2018). A special focus on quality education, TVET strengthening and early childhood education	
2017			National strategy for transformation (NST1) or the 7-	

			Years Government program (7YGP)	
2016	New competency-based curriculum for general education All schools to implement school feeding program	Competency-based approach to teaching Competency-based curriculum		Need to align pre-service teachers training with the new curriculum (WB 2018, p. 36) • Poor professional development: Training on new CBC insufficiently resourced with only 28% of teachers meeting the benchmark set for competence (World Bank 2018, p. 7) • Weak alignment between pre-service and in-service teachers training with the CBC (World Bank 2018, p. 7) • A move from lecture-driven method to student-centred and activity-based pedagogy that incorporates the use of ICT (Teachers capacity as a challenge) (World Bank 2018, p. 7) • Educators poor assessment literacy as a stumbling block to the implementation of CBE (Ngendahayo & Williams 2016) The new curriculum is appreciated by teachers however, they find it high loaded in terms of content to be covered (Ndi-hokubwayo, Habiyaemye & Rukundo 2019, p. 37). Teachers are aware of active teaching methods but they don't apply them (Byusa, Kampire & Mwesige 2020)

2017	Competency-based curriculum for TVET	Competency-based teaching and assessment in TVET Modular system in TVET Portfolio-based assessment		The new curriculum helps to improve the life of the youth in Rwanda; however the latter are sceptical about the quantity and quality of the knowledge and skills they get (Kuboja et al. 2016, p. 15)
2018			Official launch of Made in Rwanda policy to increase competitiveness by enhancing Rwandan domestic market	
2019	Comprehensive assessment	Three dimensions of assessments (School, District and national levels)		

Appendix 2: Interview guide

Understanding the perceptions of teachers on change in schooling (By Charles)

Interview guide

I am a Charles GAHUTU and I am interested in teaching practice, I am a researcher in education and I want to learn from teachers' experiences. It is in this regards that I am conducting this interview with you in a bid to learn from your individual teaching experience. Please feel free to talk and you don't have to worry for your revelations since your names will not be mentioned anywhere. For further exploration of this interview for the sake of better understanding I would like to record it, if you don't mind.

So, let's start.....

1. Please tell me how your teaching has been developing since the time you got into the job (Tell me your teaching experience).
2. Tell me, why did you change, what was the reason behind such developments?
3. You have been learning at school and now you are a teacher; how can you compare the two periods (I mean the time you were learner and the current time you are a teacher)? What reasons do you think are behind such developments?
4. Your students come from a context, I mean their current context.
 - a. Please try to describe this context for me.
 - b. How do you think will their future look like? What do your students need in their future life? Why? How would the school prepare them?
5. How has the school changed within the last years? Please tell me your experiences with those changes in schooling.
6. I want to understand more...; please tell me the examples of efforts which have been undertaken in various areas of education.
 - a. Please tell me more about your experience as a teacher in regards to those changes.
 - b. Let's now focus on your particular school. Please tell me the initiatives you undertake in your school in order to improve students' learning.

- c. What contribution do teachers bring in the efforts (initiatives) to help students learn better? What needs to be done to make their contribution more fruitful?
 - d. From your perspectives, tell me the educational areas which, you think, need further improvements. Why do you think so? How can teacher help to reach those improvements?
7. Please tell me your experience with the new curriculum you are using.
8. We have been talking a lot about the education in Rwanda and your teaching experience, is there any further relevant information you think you would share with me? Please, feel free to tell me.

The coverage of my themes

Themes	Questions
Perceptions of teachers on changing world	Question 2, 3, 4(a), 4(b), 6(c), 8
Perceptions of teachers on change in schooling	Question 1, 3, 4, 5, 6, 6(a), 6(c), 7, 8
Link between changing world and changes in education	Question 1, 2, 3, 4(b), 5, 6(c), 7, 8
The role of teachers in change	Question 6(a), 6(b), 6(c), 8

Background questionnaire for interviewees

1. Sex: Male: ☐ Female: ☐
2. Age:
3. Education level:
Secondary education: ☐ Higher education: ☐ Other: ☐
4. Qualification:
Teaching: ☐ Non-teaching: ☐
5. Other in-service training received:
Didactics: ☐ School management: ☐
Leadership: ☐ New curriculum: ☐ Others: ☐ None: ☐

6. Teaching experience: How many years?
7. School status: Public: ☐ Government-aided: ☐ Private: ☐
8. Further responsibilities:
Curriculum development: ☐ Mentorship: ☐
Marking national exams: ☐
9. Location of workplace:
Rural: ☐ Semi-urban: ☐ Urban: ☐

Probes

Examples of non-directive probes

- “Tell me more about . . .”
- “Take me through exactly what happens when you . . .”
- “Can you give me an example of . . .?”
- “Did I understand you correctly when you said . . .?”
- “Can you explain a bit more what you mean by . . .?”
- “Why do you think that is the case?”
- “Do you think everyone thinks that?”

Appendix 3: Interview guide (Kinyarwanda version)

Interview guide mu Kinyarwanda

Nitwa GAHUTU Charles ndi umurezi wabyize ubikora ndetse ukomeje kubyiga ubikunda, ushishikajwe nabyo ndetse ndi kubikoramo ubushashatsi. Nshaka rero kugirana nawe iki kiganiro kuko numva hari ibyo wanyungura bishingiye ku inararibonye ufite mu mwuga w'uburezi. Ntugire ikibazo wisanzure mu kuvuga kuko ibyo umbwira aha ntawe uzamenya ngo byavuzwe na kanaka w'ibunaka. Ikindi nongeraho ni uko mu rwego rwo kugira ngo ntagira icyo ntakaza kandi ibyo tuvugira aha bizarusheho kumfasha mu gihe kiri imbere nifuzaga gufata iki kiganiro niba ubinyemereye (recording)

Ndumva rero twatangira....

1. Nifuzaga ko twatangira umbwira igihe umaze mu burezi n'uburyo imyigishirize yawe yagiye izamuka uhereye igihe winjiriye muri aka kazi k'uburezi (Ni ukuvuga ni inararibonye yawe mu mwuga w'uburezi)
2. Nagira ngo umbwire impamvu hagiye habaho impinduka byatewe n'iki?
3. Wabaye umunyeshuri mu gihe runaka none uyu munsu uri umwarimu, ibyo ni ibihe bibiri. Nshaka ngo ungereranyirize ishuri cyangwa uburezi muri ibyo bihe bibiri (igihe wari umunyeshuri n'uyu munsu wigisha). Ibigaragara hari impinduka ubona ari iki gituma haba izo mpinduka?
4. Abanyeshuri mwigisha bava hanze muri sosiyete kandi mu-bategurira kuba muri sosiyete.
 - a. Hanze aha uhabona ute? Gerageza kuhanshushanyiriza.
 - b. Ni gute ubona ahazaza h'abo bana muri kurera? Mbwira uko ubona sosiyete yabo izaba imeze.
 - c. None ishuri ryabafasha gute kugira ngo bazabashe neza kuba muri iyo sosiyete ibategereje imbere?
5. Nifuza ngo umbwire uburyo ubona uburezi mu Rwanda bwagiye buhinduka mu myaka itambutse. Nsangiza inararibonye (experience) ufite ku mpinduka zaburanye.
6. Ndashaka ngo umfashe kubyumva neza mbwira ni ibiki byahindutse mu buzima butandukanye bw'ishuri? Mpa ingero z'ibindi byahindutse.

- a. Nka mwarimu izo mpinduka wazakiriye gute? Mbwira experience yawe kuri izo mpinduka zaranze uburezi mu Rwanda.
 - b. Reka tugaruke mu kigo iwanyu mbwira ibyo mukora by'umwihariko iwanyu mu rwego rwo kunoza imyigishirize no kugira ngo abana banyu bige neza. Udushya turimo ni utuhe mu kigo iwanyu?
 - c. Ku ruhande rw'abarimu ni ibiki bikorwa; ni utuhe dushya umuntu yabigiraho mukora mu rwego rwo gufasha abana kwiga neza?
 - d. Mu bitekerezaho byawe ubona nyuma y'izo mpinduka zose zimaze gukorwa mu burezi uwakugira umuntu ufata ibyemezo ni ibiki bindi wahindura mu rwego rwo kunoza imyigire? Kubera iki wabihindura?
7. (Wambwiye) ihinduka ry'integanyanyigisho, mbwira inararibonye (experience) yawe kuri yo.
 8. Twavuze byinshi birebana n'uburezi mu Rwanda ndetse n'imyigishirize yawe n'impinduka zagiye zibaho mu burezi. Niba hari ikindi ubona kijyanye nabyo tutavuzeho rwose wisanzure kukivugaho nacyo.

Background questionnaire for interviewees

- Sex: Male ☐ Female ☐
- Age
- Education level:
Secondary education ☐ Higher education ☐
- Qualification: Teaching ☐ Non-teaching ☐
- Teaching experience: How many years
- School status:
Public ☐ Government aided ☐ Private ☐
- Location of workplace:
Rural ☐ Semi-urban ☐ Urban ☐
- Further responsibilities:
Curriculum development ☐ Mentorship ☐
Marking national exams ☐
- In-service Trainings received:
New curriculum ☐ New methodologies ☐
School leadership ☐ Others ☐

Appendix 4: The codebook

Categories	Sub-categories	Sub sub-categories	Description
I. Origin of education change/ Decision to change	I.1. Top-down change	I.1.1. From top decisions makers	I.1.1. Change initiated by decision makers at top level
	I.2. Bottom-up change	I.2.1. Change initiated from school	I.1.2. Change initiated at District level
			I.2.1.a. By Principal
			I.2.1.b. By teachers
	I.3. School-based changes		I.2.1.c. By school stakeholders
		I.3.1. Initiatives at school level	I.3.1.a. Self-learning
			I.3.1.b. Making teaching aids
			I.3.1.c. Clubs activities
			I.3.1.d. Topic discussion
			I.3.1.e. Practice exams
			I.3.1.f. Working extra hours
			I.3.1.g. Teacher on duty
			I.3.1.h. Rewarding the best students
			I.3.1.i. Parents awareness of students performances
			I.3.1.j. Extra time learning
			I.3.1.k. Good communication and mutual support
			I.3.1.l. School based trainings
			I.3.1.m. Involvement of students in school projects
			I.3.1.n. Joint efforts in exam practice
			I.3.1.o. Networking with other schools
			I.3.1.p. Knowledge about job creation
			I.3.1.q. Joint efforts in students discipline management
			I.3.1.r. Coaching of national exams candidates
			I.3.1.s. Interaction in the morning assembly
			I.3.1.t. Meeting for self-assessment
			I.3.1.u. Partnership between students
			I.3.1.v. Counselling
			I.3.1.x. Development of students talents
			I.3.1.y. Business literacy
			I.3.1.w. Keep students busy

			1.3.1.w Students exchanging with alumni
			1.3.1.w No initiative
			1.3.1.w No individual initiative
		1.3.2. Purpose of school-based initiatives	1.3.2.a. Better learning
			1.3.2.b. Better preparation of national exams
			1.3.2.c. Attracting more students
			1.3.2.d. Fame of the school
II. Teachers relation to change	II.1. Change acceptance	II.1.1. Change is accepted and supported	II.1.1.a. Teachers like the change
			II.1.1.b. Teachers understand the relevance of the change
			II.1.1.c. Convinced by change results
			II.1.1.d. Convincing results
			II.1.1.d. High expectations about change
		II.1.2. Change is criticized	II.1.1.e. Improvement is observed
			II.1.2.a. Teachers find alternative option to change
			II.1.2.b. Schools leadership-related problem
			II.1.2.b. Teachers struggling on their own
			II.1.2.c. Unfair admission criteria
			II.1.2.d. Low expectations from change
			II.1.2.e. Technical flaws
			II.1.2.f. Frequent change/Lack of stability
			II.1.2.g. Lack of good preparation
			II.1.2.h. Change is associated with poor results
			II.1.2.i. Insufficient preparatory time
			II.1.2.j. Different students qualities in different schools
			II.1.2.k. Different learning quality in different schools
			II.1.2.k. Lack of support structures, supervision for students
			II.1.2.l. Contradictory message (contradictory changes over time)
			II.1.2.m. Unimportant changes
			II.1.2.n. Too ambitious
			II.1.2.o. Lack of involvement of teachers in change planning
			II.1.2.p. Cutting links with the former practice

			II.1.2.r Poor coordination of the change
			II.1.2.s Nostalgia of the old system
			II.1.2.t Free education, low value of education
			II.1.2.s Lack of words to say it
			II.1.2.t Sporadic scattered change
			II.1.2.u Focus on instruction only
			II.1.2.v Curriculum not fitting students capacities
			II.1.2.t Small amount of knowledge
			II.1.3.a. Change is not welcome
			II.1.3.b. Teachers don't see the reason for change
			II.2.1. Fear
			II.2.2. Scare
			II.2.2. Uncertainty
			II.2.3. Frustration
		II.2. Teachers Feelings about change	II.2.4. Confusion
			II.2.4. Puzzled
			II.2.5. Happiness
			II.3.1. Change agents
			II.3.1.a. Teachers are change initiators
			II.3.1.b. Teachers participate in change design
			II.3.1.b. Teachers give their inputs to change planning
			II.3.1.c. Teachers implement change and have room to give feedback
			II.3.1.d. Teachers are effectively trained about the change
			II.3.2.a. Teachers are asked to change
			II.3.2.b. Teachers don't participate in change planning
			II.3.2.c. Teachers implement change without any room for feedback
			II.3.3.a. Learning preceding change
			II.3.3.b. Change preceding learning
			II.3.3.c. No learning
			II.3.3.d. Teachers make efforts to adapt to change

III. Teachers perceptions of change in schooling	III.1. Change conceptualization	III.1.1.1. Well conceptualized	III.1.1.1. Clarity in change purpose, beneficiaries and expected achievements
		III.1.1.2. Poorly conceptualized	III.1.1.2. Lack of clarity
	III.2. Happening	III.2.1. Proactive change	III.2.1.a. The change is planned in line with changing world and related contingencies
			III.2.1.b. The change is substantiated by relevant studies
		III.2.2. Reactive change	III.2.2. The changes is planned in a reactive way
		III.2.4. Relations between changes	III.2.4.a. Coherent
			III.2.4.b. Conflicting
			III.2.4.c. No relation
			III.2.3.d. Lack of continuity
		III.2.5. Preparatory time	III.2.5.a. Enough time
			III.2.5.b. Very quick
	III.3. Forces driving change	III.3.1. Government agenda	III.3.1.a. Easy economic integration
			III.3.1.b. Government agendas for people welfare
			III.3.1.d. Economic aspirations
			III.3.1.f. National reconstruction
			III.3.1.g. Unity and reconciliation
			III.3.1.h. Alignment with regional system
		III.3.2. Context	III.3.2.a. Contextual challenges
			III.3.2.b. Market force
			III.3.2.d. International educational agenda
			III.3.2.e. Technological development
			III.3.2.f. Growth of knowledge
			III.3.2.f. Demographic issue
			III.3.2.g. Demographic issue
			III.3.2.h. Demographic issue

				III.3.2.i. Demographic issue	
				III.3.3. Security issue	
				III.3.4. Copying from others	
				III.3.5. Emulation	
				III.3.4.a. Better learning	
				Searching for a fitting system	
				III.4.1.a. Well resourced	
				III.4.1.b. Not so well resourced	
				III.4.1.c. Poorly resourced	
				III.4.1.d. Resources come late	
				III.4.2.a. Teachers readiness to implement change	
				III.4.3.a. Active involvement	
				III.4.3.b. Lack of involvement	
				III.6.1.a. Bureaucratic style	
				III.6.1.b. Democratic style	
				III.6.1.c. Authoritarian style	
				III.6.2.a. Learning communities	
				III.6.2.b. Trainings	
				III.6.2.c. Organization learning culture	
				III.6.2.d. Partnership/networking with other schools	
				III.6.2.e School-based mentorship	
				III.6.2.f Individual efforts	
				III.6.3.a. Effective communication	
				III.6.3.b. Ineffective communication	
				III.6.4.a. Students internal assessments	
				III.6.4.b. Students external assessments	
				III.6.4.c. Inspection process	
				III.7.1.a. Orientation diversity	
				III.7.1.b. Students engagement	

		III.7.1.c. Better learning
		III.7.1.d. Education outcomes
		III.7.1.e. Education outputs
		III.7.1.f. Access to education
		III.7.1.g. More learning alternatives (More sources of knowledge)
		III.7.1.h. Benefitting only student from well-off families
		III.7.1.h. Benefitting only smart students
		III.7.1.i. Students loose commitment
		III.7.1.i. Uncommitted learners
		III.7.1.i. More theoretical knowledge
	III.7.2. Teachers	III.7.2.a. Teaching improvement
		III.7.2.b. Opportunity to learn
		III.7.2.b. No impact/status quo in teaching
		III.7.2.d. Obligation to change teaching methods
		III.7.2.e. Teaching made easy by the use of ICT
		III.7.2.f. Teachers loose commitment
		III.7.2.f. Teacher find a better orientation
		III.7.3.f. Teacher work
	III.7.3. Educational system	III.7.3.a. Need to change
		III.7.3.b. Change side-effect
		III.7.3.c. Lack of strictness
		III.7.3.d. Literacy improvement
	III.7.4. Change side-effects	III.7.3.e. Education improvement
		III.7.4.a. Discipline issue
		III.7.4.b. Low parent involvement
		III.7.4.c. Teachers demotivation
		III.7.3.e. Imbalance between job opportunities and demands
		III.7.3.c. More graduates (Disappointment)
		III.7.3.d. Parents disappointment
		III.7.3.e. Misuse of internet, a challenge to learning

	III.8. Change achieved		III.7.3.f. Low performances Failures in national exams III.7.3.g. Overcrowded classes
		III.8.01 Absence of parents in the education of their children III.8.01 Availability of teaching/learning facilities III.8.03 Availability of qualified teachers III.8.04 Catch up program III.8.05 Change of approach to teaching III.8.06 Change of institution overseeing TVET III.8.07 Change of names and structures of departments in TVET III.8.08 Change of subject matter III.8.09 Class organization III.8.10 Change of assessment system III.8.11 Computer literacy III.8.12 Curriculum change III.8.13 Differentiation of teaching subjects III.8.14 Diversity of the sources of knowledge III.8.15. Educational monitoring	Provision and availability of teaching aids Learning facilities Literacy improvement Focus on the practice Focus on competencies development Application of knowledge Initiation to creativity Focus on the relevance of knowledge Lack of precision From WDA to RP New subject matters Improvements in subject matters Giving up subject matters Change of examinable subjects Shifts organization in primary Organization shift in 9 and 12YBE Introduction of comprehensive assessment Change of grading system Differentiation of subject weight The knowledge is not only on the side of teacher Involvement of various leadership sectors in education monitoring

		III.8.15 Focus on gender and ubudehe as admission criteria	
		Focus on specific fields of learning	
		III.8.16 Improvement of school administration	
		III.8.17 Higher learning scholarship scheme	In accordance with income categories
		III.8.17 Performance contracts	
		III.8.18 Increase of students rights and freedom	Abuse of students freedom
			Lack of respect to educators
		III.8.19 Increase number of graduates	
		III.8.20 Itorero organization	Cultural courses based on Rwandan values and traditions
		III.8.21 Lack of parents responsibility in education	Parents don't care or they just care for their own children
		III.8.22 Lack of strictness	
		III.8.23 Learner-centred teaching	Focus on student participation
			Students as responsible of their learning
			Students active involvement in their learning
			Cooperation between teachers and students
			Consideration of students interest and skills
			Individual support
		III.8.24 Loss of society's education responsibility	Education as just family responsibility
		III.8.25 Loss of teachers' power over students	Students taking some cases to the police
		III.8.26 Loss of teacher-parents collaboration	
		III.8.27 Mismatch between family and school culture	
		III.8.28 More learning opportunities	Introduction of TVET
		III.8.29 Open access to education	• Schools are plenty • Increase of secondary schools • Attending local secondary school • Compulsory primary and secondary education • 9 and 12 YBE • Expansion of tertiary education • National exams patterns

		• Success criteria • A different passing note for girls • Education service free of charge • Dissemination of school infrastructures all over the country • Parent contribution to the construction of schools • Attending neighbouring school • Intensive mobilization and sensitization • Inclusive education • Equal rights to education
	III.8.30 Opportunities for teachers professional development	Personal research as made easy by the use of Internet
	III.8.31 Orientation system	Special focus on TVET
		Consideration of students interests and skills
	III.8.32 Perspectives around teachers role	Teacher as a guide and facilitator
		Teachers as friends of students
		Teachers as organizers of learning
		Teachers as parents
		Teachers as counsellors
		Teachers can learn from students
	III.8.33 Perspectives to education	Education for survival amid challenging life
		Job creation as a target
		Education for life
		Education serving the need to adapt to daily life
		Education as a tool to earn life
		Education for national development
		Knowledge about benefit of education
		Parents/Abiding by Government rule
		Need of relevant knowledge
		Need of more students openness
		Students are not empty bags to be filled
		Education as child's right

		Students as responsible of their learning
		Need to have high expectations about students
	III.8.34 Promotion/repitition scheme	Reduction of repetition rate
		Automatic promotion
		Consideration of students aptitude in a particular field
	III.8.35 Punishment in schools	
	III.8.36 Quality of students	Lack of commitment to learning
		Don't challenge teachers
		Lack of respect
		Low discipline standards
		Lack of purpose of life
		Greediness
		Fearless
		Busy with other business
		Harassing teachers
		Don't value education
	III.8.37 Quality of teachers	Teachers taking care of students
		Competent teachers
		Lack of commitment to teaching
		Busy with other business
		Committed teachers
		Knowledgeable teachers
	III.8.38 School calendar	
	III.8.39 School feeding	
	III.8.40 Shift of power in classroom	Students autonomy vis-à-vis teachers self-reflected power
		Decrease of teachers power in classroom
	III.8.41 Shift of teaching medium	From French to English
		Shift English-Kinya for Lower primary
		Shift of language of exam
	III.8.35, Specialization in TTCs	
	III.8.51 Specialization in TVET	

	III.8.31.Students behaviours III.8.27. Students demotivation III.8.49 Teacher change	III.8.31.Students behaviours	High unemployment rate
		III.8.27. Students demotivation	Change of practice
		III.8.49 Teacher change	Change of attitudes
			Conceptual change
			Perspectives to education
		III.8.48 Teachers living conditions	U-Sacco
		III.8.25 Teachers management change	Teachers recruitment process
			Teachers professionalization
	III.8.53 Use of modular system in TVET III.9.1 Age of teachers Lack of language proficiency Teaching-associated requirements	III.8.37 Teachers relationship with students	Teachers professionalization in primary
		III.8.38 Tight and close supervision of teachers	Qualified teachers in Kindergarten
		III.8.11. Use of ICT in schools	Teachers promotion
			Good relationship, friendship
			Use of ICT by teachers and students
			Obligation to use ICT in teaching
			Smart classroom
			Easy access to ICT
			Elder teachers delay to adapt to change
	III.9 Challenges to change		Amount of the content to be taught
			Amount of requisite teaching documents
			Teachers administrative duties
			Pressure to cover the program
			No precision
		Lack of teaching enabling facilities	
		Teachers delay to change	

			Parents delay to understand change	
			Lack of parents involvement in education	
			Lack of a clear understanding of change	
			Parents poor understanding of education	
			Difficulties at the beginning	
			Difficulty to welcome change/difficulty to get rid of old tradition	
			Status quo in quality monitoring	
			Status quo in national exams setting	
			Lack of internship opportunities	
			Absence of point of references	In teachers learning time
			Insufficient school infrastructures	
			Fees in non-fee paying schools	
			Resistance to change	
			Imbalance between requirements and teaching time slot	
			Lack of clarification about change	
			Big class size	
			Reduced teaching time slot	
			Heavy teachers workload	
			Technology as a source of distraction	
			Report manipulation	
			Well-off people taking their kids abroad	
			Pessimism on the side of teachers	
			Teachers miserable life standard	
			Lack of financial means	
			IV.1.1. Forces driving changing world	IV.1.1.a. Latest technological development
				IV.1.1.b. Globalization
				IV.1.1.c. Demographics trends
				IV.1.1.d. Growth of knowledge and information
				IV.1.1.e. Labor market shifts
IV. Teachers perceptions of changing world	IV.1. Teachers awareness to changing world			

	IV.1.2. Changes	Not clear in narrative
		IV.1.2.a. More perspectives on sector of economy IV.1.2.b. Challenging life/ Pessimistic stance IV.1.2.c. Income inequality IV.1.2.d A different young generation IV.1.2.e Lack of term to express it IV.1.2.f Need of competencies instead of mere knowledge Easy access to ICT facilities-ICT literacy Growth of knowledge Digital period Hardworking Idea of gender balance Change of social dynamics/individualism IV.1.2.d. Lifelong learning culture IV.1.3. Passive attitude IV.1.3. Investing in other income generating projects IV.1.4 Giving up teaching and joining other job IV.2.1. Educational change is necessary IV.2.2. Necessity to improve education quality IV.2.2. More focus on practice IV.2.2. Easy access to knowledge IV.2.2 Students with advanced critical knowledge IV.2.2 Teaching enabling facilities IV.2.2 Learning enabling facilities IV.2.3 Need of comprehensive education IV.2.3. Education as a solution to challenging life IV.2.3 Education for survival IV.2.3. Teachers in-service training Challenging life as an opportunity to learn Confusion for children coming from rural area Decrease of teacher's power in class
	IV.2. Impact on education	IV.1.2. Teachers relation to changing world
		IV.2.1. Education change as a necessity IV.2.2. Improving education quality IV.2.3. Unprecedented need of education IV.2.3. Necessity of teachers professional development IV.2.3. Decrease of power asymmetry in schools

V. Teachers change management skills	IV.2.4. Need of appropriate resources	Decrease of school leader power
		Need of competent teachers
		Need of requisite materials
		IV.2.3. Youth misbehaviour
		IV.2.3. Rights abuse
	IV.2.5. Challenges to education (Change side-effects)	IV.2.3. Lack of parents responsibility
		IV.2.3. Teachers investing in other business
		IV.2.3. Parents are busy
		IV.2.3. Education for all, quality for some
		IV.2.3. Mismatch between students autonomy and school culture, students autonomy and teacher's reflected power
V. Teachers change management skills	IV.3. Impact on the society	Improvement of health
		Individualism
		IV.3.1. Loss of cultural values/Acculturation
		IV.3.2. Teenagers sexual morality
		IV.3.3. Necessity find more income sector to rely on
	IV.3.2 Challenges to society	IV.3.4. New requirements
		IV.3.5. Pessimism
		IV.3.6. Loss of learning opportunity/learning from elder generation
		IV.3.7 Unwanted teenager pregnancies
V.1. Intrapersonal skills	V.1.1. Innovation skills	
	V.1.2. Learning culture	
	V.1.3. Adaptability	
	V.1.4. Decision making skills	
	V.1.5. Openness to learn	
V.2. Interpersonal skills	V.1.6 Self-assessment	
	V.2.1. Collaboration skills	
V.3. Professional skills	V.3.1. Knowledge about change framework	
	V.3.2. Digital literacy	
	Lack of digital literacy	

VI. Teachers beliefs about teaching and learning	V.1. Transmissivist teaching belief V.2. Constructivist belief about teaching	V.3.2. Learning culture	V.3.2.1. Research
		V.3.2. Knowledge about change management	
		V.1.1. Teacher-centred approach to teaching	Lecturing by a teacher who is a master of the subject matter
			Teachers know what students need
		V.2.1. Learner-centred approach to teaching	Teacher holding authority, power and exercising pressure on students
	V.3. Curriculum as a fixed agenda V.4. Interactive and dynamic approach to curriculum V.5. Indicator/of quality teaching/learning	V.2.2. Learner-centred with visible teacher's authority	Students showing good discipline
		V.2.3. Necessity of students discipline	Curriculum as a roadmap
		V.3. Subject-centred approach to teaching	Efforts to cover the syllabuses
			Curriculum as a matrix of ideas to be explored over a period of time
		V.4. a. National exams results	
		In-class exams results	
		V.4.b. Students discipline as a key to learning	
		V.4.c. Necessity of boarding	
		Consideration of students diversity	
		Good classroom management	
		Good learning climate	
		Individual support	
		Proficiency in language of instruction	

Interviewee	School Status	School Ownership	Teaching field	Teacher's extra responsibilities	Teaching experience	Workplace
	Characteristics	General education				
	TIC					
	TVET					
	Government					
	Government-aided					
	Non-government					
	Mathematics					
	Natural sciences					
	Social sciences					
	Languages					
	TIC					
	TVET					
	Curriculum development					
	Making national exams					
	Writing books					
	Mentorship					
	0-5					
	6-10					
	11-15					
	16-20					
	Above 20 years					
	Rural					
	Semi-urban					
	Urban					



This study investigates the perceptions of teachers of change in schooling. It is contextualized in the After-Genocide Rwanda; a period marked by a plethora of social and economic transformations as well as sporadic educational changes. Similarly, the world is experiencing manifold changes which reshape social relations, individual and societal needs, the structure of the labour market and the understanding of life. The school system has been overhauled in its dimensions; however, this dynamicity did not get a similar echo from the scientific community. The study at hand stands out by its intention to give voice to teachers and bring to the fore their digestion of both changes in schooling and the current changing environment. A sample of 30 teachers was given room to share their perceptions of change through semi-structured interviews.

The main finding of this research is the differentiated perception of the change by the teachers in three ideal types with associated different potentials to promote change: the instrumental understanding of the change as policy-oriented for a stable society, the vacillating understanding of the change as context adaptation-oriented for integration into the global world and the functional understanding of the change as human capital investment-oriented for a knowledge society. Again, this study reveals a differing perception of the changing world between optimism and pessimism. These findings have been discussed in line with theories of teachers' agency in change, school improvement, and globalization.



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