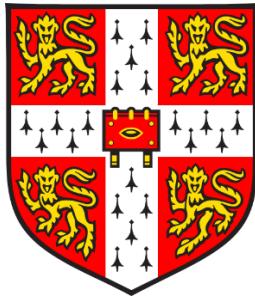


The implementation of learner-centred pedagogy in Rwanda: Teachers as mediators



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Date of Submission: 28 September 2021

This thesis is submitted in part-fulfilment of the requirements for the degree of Doctor of Philosophy for the University of Cambridge Faculty of Education

Declaration

This thesis is the result of my own work and includes nothing which is the outcome of work done in collaboration except as declared in the Preface and specified in the text. I further state that no substantial part of my thesis has already been submitted, or, is being concurrently submitted for any such degree, diploma or other qualification at the University of Cambridge or any other University or similar institution except as declared in the Preface and specified in the text. It does not exceed the prescribed word limit for the relevant Degree Committee.

Date: 28 September 2021

Abstract

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Pui Ki Patricia Kwok

In recognition of education reform being a powerful means for change, Rwanda is chosen as a case study. Despite being devastated by the 1994 Genocide against the Tutsi, the country has proactively undertaken reform of its education system. Education has since been valued as a central site to support various national developmental goals under Vision 2020 (Government of Rwanda, 2012). It has attempted to reimagine the purpose of education, followed by an enhancement of educational quality to deliver the valued outcomes. As a key reform effort, the competence-based curriculum (CBC) has been implemented since 2016. This curriculum also officialises the use of “learner-centred” pedagogy (LCP) as the teaching and learning approach. The envisaged goal of LCP is to engage students in more active and participatory learning experiences, which can help to cultivate competencies relevant for their futures (REB/MINEDUC, 2015).

While LCP is considered as being one of the most popular pedagogical approaches on a global level, the literature review reveals that its efficacy has been contested, particularly in the global South. Moreover, being associated with a constellation of theoretical traditions, LCP has no fixed meaning or practice. Concerns over LCP are commonly observed in low-resource contexts, where pedagogical practice is constrained by a range of challenging systemic issues. In this research, I undertook an exploration of the complex processes of the LCP reform in Rwanda. Using a qualitative approach, I adopted a vertical case study design using semi-structured interviews and classroom observations. Working with 16 teachers in four “schools of excellence” in Kigali city, 16 teacher trainers and 10 key government officials, I explored the perceptions and practices of LCP. Through undertaking thematic coding this rich data was analysed to identify themes across the data sets.

The findings suggest that LCP has varied meanings in the Rwandan context. The majority of participants shared an *activity-based* understanding of the concept, which required “active” participation of students in various learning activities, with teachers as “facilitators”. However, despite the subject-based variation observed in practice, as constrained by local capacity, learning in the selected Rwandan schools invariably requires strong teacher-led classroom management, and teachers remaining as the main sources of knowledge. Some participants preferred to view LCP using a *content-based* understanding. This pertained to focusing less on

classroom activities or formats and more on teachers situating content in students' everyday lived experience. While participants were generally hopeful about the potential of LCP, they did highlight systemic issues related to policies, instructional environment, teachers, students, and parents. These were discussed as key challenges to LCP reform efforts.

The study provides important implications for the international literature on classroom reform processes with a central focus on teaching and learning. Firstly, the findings show that a system-wide coordination is evidenced as being crucial for a successful reform. This challenges the teacher-deficit discourse about classroom practice. By engaging with Guthrie's (2018) teaching style model, I reflect on the importance of having locally relevant pedagogical practice that is compatible with the socio-cultural and material realities in any given context. His framework resonates with some participants' suggestion to move the reform agenda forward by depolarising pedagogical models. This would help to recentre the focus of LCP on improving the learning experience for students. Lastly, recommendations are made for both policy and teacher training in the Rwandan context and beyond. Apart from providing an enabling environment for teachers, there is a specific need to develop and legitimise a range of pedagogical strategies that can be flexibly adapted to different learning objectives, student capacity and material conditions. This would ensure the curriculum objectives are not merely rhetoric of change, but rather, realistically achievable.

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First and foremost, this thesis would not be possible without the unflagging support from my supervisor, Prof. Nidhi Singal, at the University of Cambridge. She has taught me invaluable research skills, while also being truly inspirational in every conceivable way. Under her mentorship, I have become a more confident and reflective learner, researcher, and most importantly, a more holistic person. Her impact goes far beyond the boundaries of this thesis. I, among all her students, remain profoundly grateful for her constant and unwavering guidance and her continual encouragement to challenge ourselves through problematising different realities in the world. I also owe a special debt of gratitude to my field supervisor, Prof. Eugene Ndabaga, at the University of Rwanda. His critical comments have been paramount in my reflection on the contextual dynamics.

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about the many possibilities in teaching and learning, and how we can work hard together to make a difference.

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List of acronyms

9YBE	9-year basic education
12YBE	12-year basic education
BERA	British Educational Research Association
CBC	Competence-based curriculum
CPD	Continuing professional development
DoS	Dean of Studies
DFID	UK Department for International Development
EDPRS	Economic Development and Poverty Reduction Strategy
EFA	Education for All
ESSP	Education Sector Strategic Plan
FARS	Oral Reading Fluency Assessment of Rwandan Schools
GER	Gross enrollment rate
ICT	Information and communications technology
LARS	Learning Achievement in Rwandan Schools
LCP	Learner-centred Pedagogy
MDG	Millennium Development Goal
MINEDUC	Ministry of Education, Republic of Rwanda
NER	Net enrollment rate
OBE	Outcome-based Education
PISA	The Programme for International Student Assessment
REB	Rwanda Education Board
TCP	Teacher-centred Pedagogy
TIMSS	Trends in International Mathematics and Science Study
TTC	Teacher training college
UPE	Universal Primary Education
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UR-CE	University of Rwanda-College of Education
USAID	United States Agency for International Development

VVOB

The Flemish Association for Development Cooperation
and Technical Assistance

CHAPTER 1 INTRODUCTION

1.1 The quest to improve the quality of education

Education is an important endeavour in every context. As the ideal purposes of education have evolved over time, structured reforms have been among the efforts to improve educational practices. The agenda usually reflects specific beliefs around what is considered as “good” education for the future generation and the nation, and how such goals can be achieved. However, these are not simple questions. For instance, among post-colonial countries, educational reform can involve difficult questions in relation to how to overcome certain structure and practices embedded as colonial legacies, while negotiating the meaning of education in the age of globalisation. Rwanda, which is the chosen country of focus for this thesis, represents a context in which education has been a double-edged sword. It was once at the heart of ongoing conflict, culminating in the 1994 Genocide against the Tutsis. However, the same educational space is now cherished for peace-building in post-genocide times (McLean-Hilker, 2011). The powerful purposes of education invite critical reflection not only on the *what*, but also, the *how* question on improving educational quality to support the fulfilment of valued goals.

At the international level, recognising the various benefits of schooling, there have been more concerted efforts in the past decades to widen access for all. These include and are not limited to, the commitment made at the 1990 Jomtien conference to Education for All (EFA) and later, the Millennium Development Goals (MDGs) (Williams, 2015). The primary completion rates had significantly increased after Universal Primary Education (UPE) and the extension of basic education (Altinyelken, 2010). However, the rapid expansion of educational systems has also led to emerging challenges in countries with limited local capacity. Issues such as overcrowded classrooms, limited pedagogical materials and over-stretched teachers still persist (UNESCO, 1993, 2014). Other concerns include the low attendance, progression and completion rates (Lewin, 2009). These have led to concerns about the quality of education these systems can offer.

This particular quest for improving educational quality was also attributed to the poor learning outcomes. In 2017, more than 617 million children and adolescents worldwide were found yet to achieve minimum proficiency in reading and mathematics (UNESCO Institute for Statistics,

2017, p.1). Regionally, on the African continent, in 14 countries where TIMSS¹ data is available, a meta-analysis found that average pupils scored more than two standard deviations below the TIMSS average, thus placing them below the 5th percentile among most developed countries (Sandefur, 2016). Reports continue to highlight the persistence of poor learning outcomes, with terms like the “lack of education” (Pritchett, 2004) and the “learning crisis” (Hickey & Hossain, 2019; UNESCO, 2013; World Bank, 2018). These observations suggest that the access to and the years of schooling alone do not necessarily guarantee students can achieve the intended outcomes. This has led to an additional focus on what is high quality education and how to bring it about.

Against this landscape, with this research, the aim is to investigate the processes of teaching and learning. One of the globally popular approaches known as “Learner-centred Pedagogy” (LCP) has been chosen as the focus (to be discussed further in Section 1.3 below). Recognising that reforms in low-resource contexts tend to be constrained by a wide range of factors (Chapter 3), a qualitative approach is used to engage with the voices of teachers, teacher trainers, and government officials. As teachers are the key mediators of any changes, the research involves probing how they implement LCP in their classrooms. The main research aim is to understand the ways these stakeholders understand and implement the reform efforts. This will help in reflecting on education reform not as an event, but rather, a complex, ongoing, and multi-level process of change.

1.2 Personal position and motivation for the study

To begin with, teaching and learning have always been my passion. As a first-generation college student, I was subject to a lonely battle at school. Teachers have since become my most inspiring mentors and role models. They made me brave the journey that I perceived as being destined to fail. More importantly, they have cultivated in me the sense of social justice, by never giving up on me – the “problematic” student who has endless struggles ranging from lack of self-esteem to poor examination performance. Gradually, I have developed profound respect for the teaching profession.

My passion for this research is further influenced by my lived experience traversing different parts of the world. When I came to England for my post-graduate studies, I was quite shocked to learn that Chinese education, where my intellect and holistic attributes were cultivated, is often known for “spoon-feeding”. Studying at the top universities was also a surprisingly

¹ Trends in International Mathematics and Science Study

defeating experience. For instance, group discussions were sometimes difficult for me to relate to, and my peers were not always be helpful. I fell into long contemplation about what “good” education meant.

As my perception of what is “good” education became destabilised, I felt the same shift regarding what “poor” education is, as portrayed in the literature. I participated in several service learning trips to Kenya (Uwezo Pamoja Trust), Uganda (Maendeleo Foundation) and Rwanda (Peace and Hope Initiative) as summer outreach programmes during my undergraduate studies at the University of Hong Kong. Afterwards, I suspended my pragmatist or wishful thinking about educational improvement. Tao (2016, p.5) problematises the technicist approach in many research discourses, which stereotype and vilify “Third World teachers”, without providing a complete picture of their lived experience and I had the same feeling about the missing contextual sensitivity. The teachers I met were trying their best in the most difficult circumstances. Most pedagogical materials and even laboratories were created from scratch, while water and power remained a luxury. Yet, I enjoyed learning more than ever, as these teachers had locally relevant knowledge well-incorporated into their sharing. This profoundly influenced my thinking, leading to questions such as how do we consider different cultural angles when defining the problems and required standards in education? Who has the authority to do so?

These questions accompanied my further journey in comparative education. I am committed to learning more from teachers themselves and their perspectives on educational issues. A valuable opportunity to follow this up was found in Rwanda following the recent officialisation of LCP in the new curriculum. I have deeply treasured the unflagging support from my host family during my service learning trips, and later the fieldwork for my masters studies. I have also had the privilege to work with a father-like local supervisor, Professor Eugene Ndabaga at the University of Rwanda-College of Education. With his generous support, I managed to converse with key educational historians and policy actors to explore the trajectory of educational reform in Rwanda. This profoundly diversified my understanding of Rwanda beyond the typical western narrative and hence, I avoided falling into what Chimamanda Adichie calls *the Danger of a Single Story*².

² Adichie, Chimamanda (2009, Oct 7). The Danger of a Single Story [video file]. Retrieved from https://www.ted.com/talks/chimamanda Ngozi Adichie_the_danger_of_a_single_story?language=en, accessed on 18 Sep 2020.

Lastly, the 10-month fieldwork in Rwanda made me truly realise the powerful potential of education for social transformation. The national mourning months of the 25th commemoration of the 1994 Genocide against the Tutsi were emotionally heavy. At the same time, I felt more thankful than ever before for having the opportunity to reflect deeply on life and humanity. This picture is among the visible symbols that has led me to mull over many “why” questions.

Figure 1.1

Kwibuka25 "to remember" word art near Kigali City Hall



This has inspired my continued reflection on the purposes of education being in line with contextual needs. It is a combination of all these experiences that has been driving my research journey.

1.3 The focus on teaching and learning

As stated at the beginning, the chosen focus on teaching and learning is in recognition of their centrality in achieving the desired educational outcomes. However, what constitutes “quality” education can be controversial, for it is a multi-faceted concept, regarding which, the culture-specific understanding will be discussed further in Chapter 2. The factors contributing to quality education have gradually become more comprehensive over the years. Traditionally, research on educational effectiveness had a focus on input-output relations underpinned by an economic perspective of efficiency (Scheerens, 2004). The more recent monitoring

frameworks of UNESCO (2019) and UNESCO-IIEP (2019) have indicators covering: context, input, access, process, output, outcome and impact. Teaching and learning as a process factor is a relatively recent research focus in the context of quality education. That is, this became more widely featured in the pursuit of understanding the *why* process at the school and classroom levels from the 1990s onwards (Creemers & Scheerens, 1994; Reynolds et al., 2014). Often described as a “black-box” (Black & Wiliam, 1998; Rozelle & Wilson, 2012), the process of teaching and learning has been shown to be influential in schooling experience and student achievement (Aslam & Kingdon, 2011). Its importance is recognised in the Global Monitoring Report 2013/14 entitled *Teaching and Learning: Achieving quality for all* (UNESCO, 2014). An impact evaluation of 12 types of educational intervention also found that changes in instructional or pedagogical methods evidently have a relatively strong effect on student performance (Conn, 2017).

Notably, the concern on the “quality” of education is not merely about learning outcomes in themselves, but also, the national ambitions to be supported by education. Particularly inspired by the human capital theory that has flourished since the 1960s, a market-driven perspective views public expenditure on education not as consumption, but rather, as an investment in the national human workforce for improving future economic productivity and growth³ (Becker, 1994; Schultz, 1961). This vision thus connects education instrumentally to goals, including, but not limited to, national development, poverty reduction (World Bank, 2011a), and building knowledge economies (OECD, 2001). Rather than the years of schooling or attainment, Hanushek and Woessmann's (2008) review suggested that it is the cognitive skills acquired by individuals that lead to economic growth. More reforms that target the process of teaching and learning to ensure students can acquire identified skills are needed, which accord with policy visions. The World Bank (2008), in the case of “Learner-centred” Pedagogy (to be explained in Section 1.4), has elaborated upon such a connection when curriculum reform prescribes practices: “instructional processes are linked to learning outcomes, learning outcomes are linked to educational goals, and educational goals are linked to policy goals” (p.46).

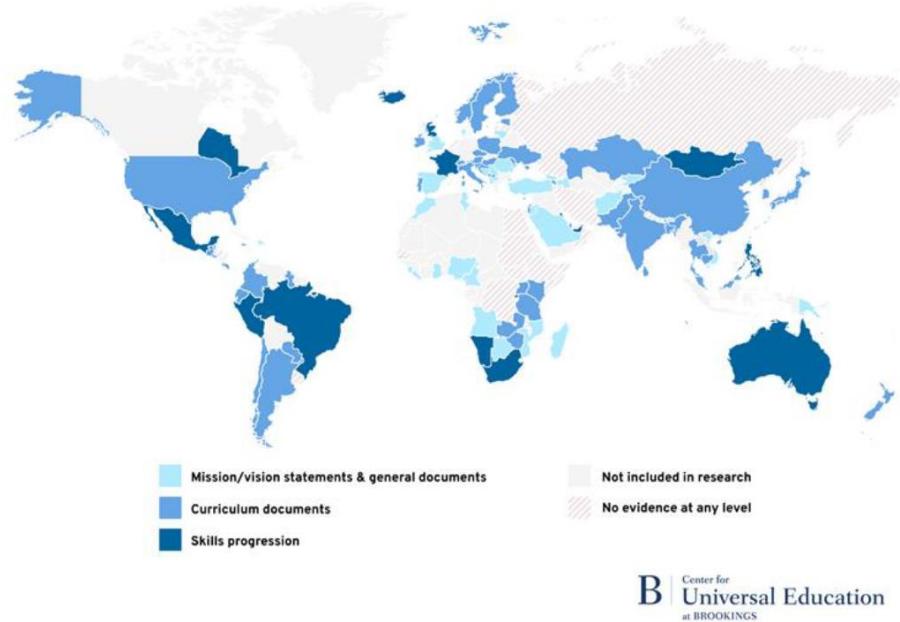
The “quality” education that reflects the abovementioned desire is often referred to discursively as “education for the 21st century” (Marope, 2014). Addressing the market structure and

³ As a major proponent of the human capital theory, Becker (1994) notes that “nothing in the concept of human capital implies that monetary incentives need be more important than cultural and nonmonetary ones” (p.21). However, it has been observed that the pressures of global capitalism, among other factors, have continued to push education into serving as a means for external goals, rather than as an end in itself (Young, 2013).

technological advancement, such education is broadly envisioned to be future-oriented and focused on know-how or skills, rather than knowledge itself (Bodinet, 2016). This change can be observed in global curriculum reform efforts. Using the available data across 152 countries, a report has identified that 53 countries mention “skills” in their mission or vision statements, 38 in their curricula, and 17 have called for skills progression (Care, Kim, Vista, & Anderson, 2018).

Figure 1.2

Skills in national documents across 152 countries (Care, Kim, Vista, & Anderson, 2018, p.9)



In the regional context, in Sub-Saharan Africa, the imperative to cultivate human capital with skills and competencies can be seen on various agendas. These include the Basic Education in Africa Programme (IBE-UNESCO, 2009), and the Continental Education Strategy for Africa, in line with the African Union’s Agenda 2063 (African Union, 2016). The Mastercard Foundation similarly notes that the skills and competencies will support youth for the world of work and the post-industrial “knowledge-based” economy, where digitalisation, automation, and technological advances are the common trends (Mastercard Foundation, 2020, p.9). In line with these agendas, in the last two decades, at least 27 African countries have implemented reforms towards “competence-based” or “outcome-based” education (Fleisch, Gultig, Allais, & Maringe, 2019). Cunningham (2018) elaborates the trend in Eastern and Southern Africa as:

A movement away from a traditional curriculum (broadly defined as being ‘academic’ and teacher-centred with a high degree of subject content) towards a ‘competency’ or

‘outcome’ based curriculum (i.e. learner-centred and focused on developing skills and capabilities). (p.1)

While the desired skills vary according to the contexts, they commonly include higher-order thinking skills, such as critical thinking, creativity, and collaborative and communication (Scott, 2015).

1.4 “Learner-centred” Pedagogy as an approach to classroom reform efforts

To translate these curriculum goals into practice, “Learner-centred” Pedagogy (LCP) is one of the popular innovations. LCP in Rwanda was made official by the competence-based curriculum implemented in 2016, which will be discussed in the next chapter. Observed as being among the most globally standardised educational ideas (Carney, 2009), LCP is also recommended by global authorities including UNICEF and UNESCO (Vavrus, Thomas, & Bartlett, 2011). Anderson-Levitt's (2017) review of international policy discourse trends shows that the inclusion of “competence” and “skills” have aligned with “learner-centred” instruction since the 1990s. The widespread application of LCP is likewise shown in Schweisfurth's (2011) work, which identifies 72 studies discussing LCP in 39 country contexts.

Despite its popularity, LCP is not free of criticism and in the global south, it has been held by some sceptics as being a “western export” (Jackson, 2015) or an “imposed adoption” (Ruth & Ramadas, 2019). Some query its being privileged compared to other endogenous approaches with evident success and sensibility to local contexts (Akkari, Lauwerier & Shafei, 2012; Carter, 2010). The strongest sceptics believe LCP, as promoted by international agencies, is a conspiracy of westernisation disguised as effective teaching (Guthrie, 2011; Tabulawa, 2003). These authors similarly question the social injustice in post-colonial policymaking, and the practicality of using a Eurocentric paradigm in other settings.

That said, the agency that post-colonial countries have in policy borrowing and implementation cannot be downplayed. Studies on policy transfer note that there is no unidirectional coercion (Cowen, 2009; Steiner-Khamsi, 2006; Weaver-Hightower, 2008). Steiner-Khamsi (2010, 2014) has shown that the “global speak” is often instrumentally invoked to justify policy-change resonating with local needs. Many “travelling reforms” have been found to be resistant to wholesale adoption and will be locally reinterpreted in the translation stage (Steiner-Khamsi, 2016). For instance, the learner-centred education in China (You, 2018) and the outcome-based education in South Africa (Spreen, 2004) have shown the vanishing of international reference

once the ideas have been domestically appropriated. Chisholm and Leyendecker (2008) similarly explain that in Southern African contexts, learner-centredness, outcomes-and competency-based education and national qualifications frameworks have been favoured not because they were “entirely new”, but rather, “ambiguous enough to be seen as key vehicles for achieving not so much educational, as economic, social and political goals” (p.196). Hence, the authors believe that, while the reforms may be influenced by the broad forces of globalisation, focus of international aid agencies, the new political world order and pedagogical ideas from the USA and Europe, the reform is still a combination of “top-down pressures and bottom-up desires” (Chisholm & Leyendecker, 2008, p.198).

At the implementation stage, LCP still has no standardised formats in practice apart from being generally associated with the “active” learning principle (Chapter 3). This is acknowledged by a DFID-commissioned review. The authors of which indicate there is a paucity of details in policy documents about pedagogy in *practice*, and thus, how a theoretical approach is understood among educators is missing (Westbrook et al., 2013). Sayed and Ahmed (2015) likewise emphasise that a “contextualized and clear understanding of what pedagogical processes are generative of quality learning and how teacher agency can enact them” (p.336) is still lacking. This thesis is aimed at building on this trend of research by exploring pedagogical change that has the potential to improve educational quality.

1.5 Contribution of this study

This study contributes to the broader discussion on improving “quality” education through reforms on teaching and learning. With Rwanda chosen as a case study, this research involves exploring the views on, and complex process of translating LCP ideals into practice. This is achieved by engaging with the voices of key Rwandan stakeholders, including government officials, teacher trainers, and most importantly, teachers. As Rwanda is among the newest contexts implementing LCP, this particular case will contribute to the large volume of comparative research on its use as a teaching and learning approach, and also scholarly studies on classroom reform.

Moreover, this thesis challenges the entrenched teacher-deficit approach to the understanding of educational change. Rather than viewing the gap between policy and practice as a problem, a context-sensitive lens is adopted to explore multiple perspectives on change within the local

realities. The findings will provide important implications for policy planning and future teacher development programmes, which can facilitate productive reform efforts.

While LCP is applicable to all levels of education in Rwanda, the study is focused on lower-secondary education. Primary education in African contexts has already received relatively more attention. For instance, 35% of the total studies in a recent mapping of educational research conducted by scholars based in Africa were found to have a primary focus (Rose, Downing, Asare, & Mitchell, 2019). Moreover, secondary education is evidently a crucial transitional stage for adolescents' all-rounded development (OECD, 2011), while at the same time pragmatically preparing them for the world of work (Mastercard Foundation, 2020). However, secondary education in African countries has also been observed as being resistant to curriculum innovation, especially regarding the examination systems, which, in many cases, have been retained from the colonial past (Verspoor, 2008, p.185). In sum, this thesis is devoted to exploring the dynamics of change in the abovementioned key educational stage.

1.6 Structure of the thesis

This research presented with the following chapters. Chapter 2 presents contextual information on Rwanda, where the case study took place. Then, Chapter 3 provides a review of the relevant literature, which will cover the theoretical underpinning of LCP and also various contentious issues regarding its implementation. Chapter 4 sets out the research questions and explains the chosen methodological approach for the study, which explores stakeholders' perception of and teachers' use of LCP. The findings are reported in the next three chapters corresponding to each research question, respectively. Chapter 5 discusses how LCP is conceptualised and defined among key government officials, teacher trainers and teachers in the Rwandan context. Chapter 6 explore how teachers translate LCP into classroom practices, whilst Chapter 7 identifies the perceived enablers and barriers of LCP. Lastly, in Chapter 8, there is synthesis of the findings and further discussion of these, with particular reference to Guthrie's (2018) teaching style model. It will help in providing understanding as to how LCP has been recontextualised in the Rwandan context in line with the desired purpose of education in post-genocide times, and the classroom circumstances. Lastly, Chapter 9 will conclude the thesis, with discussion on the implications of the study for Rwanda, international research on LCP as well as classroom reforms, with there also being suggestions made for potentially beneficial future research avenues.

CHAPTER 2 REFORMING EDUCATION IN THE CONTEXT OF RWANDA

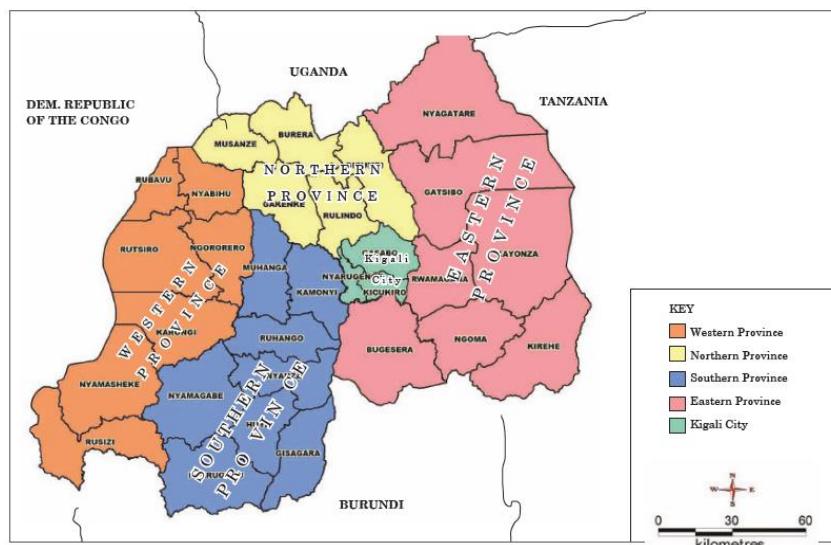
In this chapter, the Rwandan educational system is described in detail. A brief historical review from the pre-colonial to post-genocide eras is provided, which helps to explain the importance of quality education in post-genocide aspirations. These will be summarised under three major themes, namely: the provision of equitable access to education, education for social reconstruction and cultivating human capital for economic development. The efforts to improve education came to form the competence-based curriculum (CBC) in 2016, which officialised “Learner-centered” Pedagogy (LCP) as the teaching and learning approach. Apart from improving learning outcomes, LCP is also valued as an important approach to support the country’s socio-economic aspirations. To explore the opportunities for using LCP in the Rwandan context, in the latter part of the chapter, the material and social realities faced by teachers will be described. Lastly, a critical engagement with both international and local literature is included to reflect on the opportunities for the pedagogical innovations in Rwandan classrooms.

2.1 The historical background of education in Rwanda

Rwanda is a small land-locked territory in Central-East Africa neighbouring Uganda, Tanzania, Burundi and the Democratic Republic of Congo. Since 2006, Rwanda has comprised four provinces and Kigali city, these being divided into 30 districts in the country as a whole. This is shown in Figure 2.1:

Figure 2.1

The administrative map of Rwanda (REB, 2019)



Rwanda was part of German East Africa between 1890 and 1916 as part of Ruanda-Urundi, subsequently being overtaken by Belgium. It gained its independence in 1962. A power struggle between the two prominent ethnic groups, the Hutus and Tutsis, culminated in the most tragic atrocity in Rwandan history: the 1994 Genocide against the Tutsi. Some believe the Belgian colonialists had played a significant role in paving the way for the conflict. They describe how Belgians racialised the existing group identities of Hutu, Tutsi and Twa, in particular, by supporting the Tutsi elites as auxiliaries in both missionaries and the colonial administration, which exacerbated the social stratification (Lemarchand, 1970; Mamdani, 2001; Prunier, 1998). However, the origin and nature of these identities remain controversial. The differences can be traced to clan, ethnicity, occupations, and socio-economic status (Baisley, 2014; Uvin, 2001). The disputes have continued in post-genocide times since the interpretation of the differences has implication on the peacebuilding model adopted.

The pre-colonial education in Rwanda was largely oral, gender-specific and for character formation. At the communal level, elders took the roles of transmitting values of honour, courage, honesty, authority to the youth (Rutayisire, Kabano, & Rubagiza, 2004). At the kingdom level, the traditional Rwandan school known as *Itorero ry' Ighigugu* focused on boys developing practical skills for adulthood as well as culture, values, and taboos (National Itorero Commission, 2013). In Itorero, boys could engage in sports, dances, songs and poetry, while the peer-learning space called *urubohohero* was for girls to practice weaving baskets and mats (Ndabaga, 2004). Through these activities, gender-specific values were cultivated for building communal relations, such as eloquence, patriotism and bravery for men, whilst this pertained to patience and generosity for women (Ndabaga, 2004). The desire was captured by a proverbial saying *kubana kuruta ibyose*, which means “living together peacefully in co-existence is better than anything”. In post-genocide times, some of this pre-colonial heritage has been revitalised as home-grown solutions in and beyond school settings for social cohesion, peace and reconciliation (NURC, 2016b). That said, skeptics warn against an oversimplistic or romanticised myth of harmony in the pre-colonial Rwandan society as internal conflicts and deep inequalities existed (Akpome, 2014; Bentrovato, 2015).

During colonial and post-colonial times, schooling was evidently a key venue for fuelling inequalities, for access to schools has always been inequitable. As the Tutsis were viewed by the Belgians as the “natural-born chiefs”, the most prestigious Astrida College had 45 Tutsi but only nine Hutu students in 1932 (Prunier, 1998). The power structure was reversed in post-colonial times when the Hutu regime gained power. Despite the official discourse holding to

the provision of “universal education” and “equality of opportunity”, schooling remained elites-dominated together with the marginalisation of national language and culture (McLean-Hilker, 2011). Inequity was institutionally entrenched in the Second Republic’s 1973-94 policy of *iringaniza*, “the quota system”. The draconian selection backing the Hutu majority had explicit discrimination along the lines of ethnicity, region, and gender to determine one’s educational opportunities (Rutayisire et al., 2004). This policy restricted the proportion of Tutsi in schools, the civil service and other employment sectors to 9% (Magnarella, 2000). Regional inequalities were also entrenched as 50% of the managerial posts were held by Ruhengeri and Gisenyi districts (NURC, 2016a). Despite comprising only 9.7% of the total population, Gisenyi disproportionately received 15.61% of the total places for school allocation (NURC, 2016a).

The colonial education also altered teaching and learning approaches for ruling purposes. Such education was described as “put[ting] a knife on African cultural traditions”, when local cultural values, and Kinyarwanda the mother tongue were discarded in favour of French (Ndabaga & Tabaro, 2015, p.143). Students were punished or shamed when caught speaking Kinyarwanda (Obeng, 2002). Education also had a formalised authoritarian style for fulfilling the colonial doctrine, particularly the transmission of accepted sociopolitical norms, traditions, and beliefs (Weinstein, Freedman, & Hughson, 2007). Generally persisting in post-colonial times, such an approach has had limited intention of fostering active learning (McLean-Hilker, 2011; Walker-Keleher, 2006). As such, Rwandans during colonial times were regarded as deprived of leadership, decision-making, creativity, and instead, accustomed to the culture of dependence and passive submissiveness for serving the colonialists (Ndabaga, 2004). A divisive ideology was also instilled in classrooms. Apart from textbooks that essentialised Hutus and Tutsis based on physical differences and mental capacity (Bush & Saltarelli, 2000), segregation in seating arrangements was also observed (King, 2014). Racism was among the key conditions identified by Uvin (1999) as necessary for fueling the pre-genocide tension. King (2014) further details how racial inequalities were internalised, reproduced, and amplified in Rwandan classrooms through processes of categorisation, collectivisation and stigmatisation. She adds that students were not allowed to question or disagree with the teacher and thus, critical thinking was not promoted.

An improvement of educational quality was sought in Rwanda in the 1970s. It followed a wave of seeking vocationalisation, ruralisation and democratisation in the region, as more and more African countries gained independence (Obura, 2003). The reform intended to address the

limited human resources leading to rural youth unemployment, and to promote a resurgence of local language and culture (Walker-Keleher, 2006). According to Hoben's (1989) detailed study, the 1979 reform covered various input factors, including materials, physical infrastructure, and teacher qualifications. The historical marginalisation of girls was also critiqued, for as aforementioned, as the gender-biased curriculum was to prepare girls as homemakers and boys as wage-earners (Hoben, 1989; Huggins & Randell, 2007). Pedagogy was, however, was barely mentioned. Moreover, access to schooling remained low. In 1987, the net enrolment rate (NER) at primary level was only about 55% to 60%, and only 8% of primary school graduates were admitted to secondary schools, which was the lowest among 39 Sub-Saharan African countries at the time (Hoben, 1989, p.48).

The efforts in educational reform in Rwanda soon came to a halt as the 1994 Genocide against the Tutsi left the country in devastating ruins. The official casualties were more than 1 million killed (Rwanda Constitution, 2003), while competing sources argue for a substantially lower number (Meierhenrich, 2020). Whatever the case, the extent of destruction of the education sector was succinctly shown in Obura's (2003) summary:

Teachers and educated, thinking people were singled out for assassination, and pupils and teachers were both victims and perpetrators of the genocide in state and church schools. As a result, schools were ransacked and destroyed, as was the Ministry of Education. Few teachers were left. Little documentation or school supplies remained. Schools were deserted and closed. Hundreds of thousands of households were left headed by children. (p.17)

Despite these challenging circumstances, primary and secondary schools urgently restarted in September and October 1994, respectively (Bridgeland, Wulsin, & McNaught, 2009).

2.2. Post-genocide nation-rebuilding and the central role of education

Education has been valued as playing a central role in Rwanda's post-genocide project of nation-rebuilding. Guided by the national development framework *Vision 2020* adopted in 2000, the aspirations include: to form "a united, democratic and inclusive Rwandan identity", to "transform into a middle-income nation", and to "construct a united and competitive Rwanda both regionally and globally" (Government of Rwanda, 2012, p.i). Aligning with these goals in socio-economic transformation, education has been valued as "a critical investment"

(MINEDUC, 2013). In the education sector policy, three themes are listed, namely: (1) overcoming historical legacies of educational inequity; (2) peacebuilding for national unity and reconciliation, and (3) cultivating skilled human capital (MINEDUC, 2003a). This comprehensive role of education is reiterated in the mission statement of the Ministry of Education:

To transform the Rwandan citizen into skilled human capital for socio-economic development of the country by ensuring equitable access to quality education focusing on combating illiteracy, promotion of science and technology, critical thinking and positive values. (MINEDUC, 2013, p.9)

Improving the quality of education is, thus, central to the national development project. Since the implementation of CBC in 2016, the budget allocation towards improving the quality of education has doubled between 2016/17 and 2019/20, increasing from RWF 16.1 billion to 32.9 billion (about £24 million) (UNICEF, 2019). However, the same report also notes that these inputs have mainly been allocated to ICT and hardware, with much less investment in teacher training or other soft inputs. The sections below provide further details about the emergence of LCP in relation to these developmental goals. An overview of key educational policies in post-genocide Rwanda is attached in Appendix A.

2.2.1 Equitable access to education

Rwanda's post-genocide reconciliation has relied on the "sameness" approach to the reconstruction of ethnic identities (Sayed et al., 2018). This is reflected in the 1999 establishment of the National Unity and Reconciliation Commission (NURC), which promotes "the spirit of Rwandan identity" by "put[ting] national interests first instead of favours based on ethnicity, gender, religion or region of origin, etc." (NURC, 2016b, p.36). The 2003 Constitution similarly stipulates the eradication of genocide ideology, divisionism, and discrimination on any grounds (Rwanda Constitution, 2003). However, prohibiting the use of ethnicity has also caused concern on achieving meaningful equality for the marginalised in the ethnic conflict (Dawson, 2018).

This commitment to equality has been realised through providing access to education for all. In the post-1994 recovery period, the priority was given to raising primary-school attendance

to 80%, and secondary-school admissions to 30% by 2000 (MINEDUC, 1998, p.iii). The improvement of the quality of teaching and learning was also addressed in the same document, but mostly regarding materials and teacher training. With reference to the global frameworks of UPE and EFA, a fee-free primary education has been offered since 2003/4 (MINEDUC, 2003a). The Education Sector Strategic Plan (ESSP) 2004-2008 reassures the commitment to UPE and MDGs (MINEDUC, 2003b, p.12), while ESSP 2008-2012 expanded the concern over educational access, with a focus on repetition and drop-out rates (MINEDUC, 2008a, p.10-11). Over the period from 1998 to 2008, average annual growth rates of 5.4% and 11% were observed for enrolment at primary and secondary levels, respectively (World Bank, 2011b). Notably, by 2015, Rwanda had already achieved the targets of UPE and gender parity at the primary level (UNESCO, 2015). The school-feeding programme has been implemented since 2016 to improve attendance and learning (Downen et al., 2020). Yet, despite the increase in the official budget, often vulnerable families are still unable to benefit from the programme (Ntirenganya, 2020b). For post-basic education, means-tested loans⁴ are provided to students, as the Ministry has stated that “no qualified student is barred from higher education solely because of their own or their family’s inability to provide support” (MINEDUC, 2008, p.20).

The equitable access to education was largely supported by the 2008 policy of free Nine-Year Basic Education (9YBE) for human resource development (MINEDUC, 2008d), which was expanded to Twelve-Year Basic Education (12YBE) in 2013 (MINEDUC, 2013). However, the hidden costs, including the contribution to parent-teacher associations, fees for examinations, school materials, and coaching continue to pose a huge burden for the majority (Williams, Abbott, & Mupenzi, 2015). Apart from the limited parental capacity to support students, despite their willingness (Tabaro & Uwamahoro, 2020), the inability of payment often leads to stigmatising punishments, which also influences students’ educational aspirations and trajectories (Williams et al., 2015). Furthermore, schools providing basic education are often viewed negatively. Williams (2018) finds that these schools are seen as being “cheaper”, “lesser”, “for those who failed” and are only “better than no school” for delayed unemployment (p.2, 12-13). Another study similarly elicits that these schools are associated with pejorative Kinyarwanda terms, like *ndererindaya*, “educate for me prostitutes”, and *nararumbije* “I was

⁴ This is offered based on *ubudehe* categories, a home-grown approach of participatory development for poverty reduction (Ezeanya-esiobu, 2017). Despite the mixed response, this programme won the 2008 UN Public Service Award for excellence in service delivery. Recently the government announced *ubudehe* categories are to be scrapped for scholarship and replaced with a merit-based approach (Bishumba, 2019).

not fruitful” (Nizeyimana, Nzabalirwa, Musingambeho, & Nkiliye, 2021). Hence, Pells, Pontalti, and Williams (2014) and Williams (2018) argue schooling opportunities have often offered unrealistic hope for the vast majority.

More efforts were also made into reducing gender inequalities. In 2007, the girls’ net enrolment as a percentage of boys decreased by educational stage, namely: 102.7% for primary, 85.5% for secondary and 67.7% for higher education level (FAWE 2007, as cited in Huggins & Randell, 2007). To promote gender equality further, the Girls Education Policy adopted in 2008 commits to tackling gender stereotyping and discriminatory practices (MINEDUC, 2008b). This also demands changes in the teaching and learning approach. As of 2019, girls have higher representation than boys in primary and secondary stages, as shown in Table 2.1.

Table 2.1

Enrolment pattern by gender in education (MINEDUC, 2019a)

Gender	Education level		
	primary	secondary	Tertiary
Male	98.4%	46.7%	56.94%
female	98.6%	53.3%	43.06%

The disparities in performance have also been reduced, despite girls still performing less well than boys in both O-level and A-level examinations in 2019.

Table 2.2

Comparison of performance pattern in school leaving exams (Huggins & Randell, 2007; MINEDUC, 2019a)

	P6		S3		S6	
Academic year	2000/01	2018/19	2000/01	2018/19	2000/01	2018/19
Male	63%	79.9%	59%	85.7%	56%	91.9%
Female	37%	82.2%	41%	81.1%	44%	82.8%

In addition, special needs education has also been prioritised. Since 2003, a comprehensive framework of “child-friendly schools” has been implemented in collaboration with UNICEF. Six holistic standards are used, namely: inclusive of children, secure and protective, healthy, effective with children, sensitive to gender, and involved with communities (MINEDUC, 2009, p. 6). Improving teaching and learning is, thus, crucial to meet these standards. Whilst also

including gifted learners, the special needs education policy adopted in 2007 highlights specific support for students disadvantaged with disabilities, educational difficulties, and learning achievement disorders (MINEDUC, 2007). However, some have critiqued the narrow definition on inclusion, which is focused exclusively on physical disability (Karangwa, Miles, & Lewis, 2010). In the revised policy, the commitment to *uburezi budaheza* “inclusive/non-exclusionary education” recognises that “all learners are different, and can learn and develop differently” (MINEDUC, 2018b). For mainstreaming students with special needs, teachers are advised to adapt flexibly to include every learner in consideration of socio-cultural attitudes on disabilities, socio-economic disadvantages, and infrastructural as well as geographical barriers (MINEDUC, 2018b). Aligning with these goals, in teaching, the Ministry advises teachers to “privilege learner-centredness”, to be “innovative and relevant”, and to “accommodate multi-disciplinary teaching and itinerant support approaches” (MINEDUC, 2018c, p.34). However as of 2019, only 35.6 % of schools have adequate infrastructure for students with disabilities (MINEDUC, 2019a). Both gender and inclusive education are listed as among the “cross-cutting issues” to be addressed further in CBC (REB/MINEDUC, 2015b).

Despite the abovementioned challenges, following the rapid expansion of the education system, a World Bank report on the progress in primary education places Rwanda in the second most advanced of four groups⁵ of Sub-Saharan African countries (Bashir, Lockheed, Ninan, & Tan, 2018). Some concerns, nevertheless, remained in 2019, as shown in Table 2.3. The NER at secondary level was still low at 24.5% (MINEDUC, 2019a). In addition, high drop-out rates were also noted of 7.8% and 8.2% at primary and lower secondary levels, respectively.

⁵The indicators of the “emerged” group are: ≥ 90 GER in 2000; ≥ 90 GER in 2013; ≤ 20 out-of-school rate; and ≤ 80 retention rate)

Table 2.3*Enrollment and progression rates in 2019 (MINEDUC, 2019a)*

	GER	NER	Repetition	Dropout
Primary	138.8%	98.5%	10%	7.8%
secondary	42.5%	24.5%	4.2%	8.2%

These figures have led to more discussion about educational quality. Ironically, despite being determined to tackle the high repetition and dropout rates (MINEDUC, 2019a), in February 2020, the automatic promotion policy, which was originally adopted in 2001 to enhance universal education (Nkurunziza, 2020), was terminated so as to reinforce academic merit (MINEDUC, 2020b). This was aimed at addressing the dissatisfaction from teachers and parents about students lacking motivation, and many progressing without the expected knowledge (Kantengwa, 2020). The worry about learning outcomes was also highlighted by the Rwandan government and international partners (Independent Commission for Aid Impact, 2012). A 2011 USAID-commissioned study shows that 13% of P4 students were unable to read a single word in a text expected for P2 to P3 (MINEDUC, 2015). The 2014 Oral Reading Fluency Assessment of Rwandan Schools (FARS) found that only 18% of P3 students had achieved the grade-appropriate standards (Moulton, Christina, Arkorful, Sugrue, & Ericson, 2016). Meanwhile, the disparities between schools are also alarming. The “Learning Achievement in Rwandan Schools 2” (LARS2) indicates the rural-urban and private-public divide in learning outcomes, as shown in Table 2.4. In P5, the gap between private urban and public rural schools is shown to be around 40% on literacy and numeracy.

Table 2.4*LARS2 average scores by level, school type and location (MINEDUC, 2018a)*

Type of schools	P2		P5	
	literacy	numeracy	literacy	numeracy
Private (urban)	72.9%	46.7%	85.6%	75.5%
Government-aid (urban)	50.7%	37.9%	56.4%	46.7%
Government-aid (rural)	44.8%	32.2%	39.2%	35.1%
public (rural)	41.6%	31.2%	44.1%	36.3%

These observations have led to the call for improving teaching and learning approaches. LCP is officially stated in the ESSP 2010-2015 for schools and teacher training (MINEDUC, 2010).

It is further officialised in the CBC implemented since 2016. Described as the “most thorough” reform, which apart from meeting local needs, also reflects an effort towards curriculum harmonisation in the East African Community (MINEDUC, 2020a). LCP is officially stated as the approach in CBC to ensure the learning of life skills, values and practices to be meaningful and child-friendly by taking into account learners’ individual background, capabilities, experience, needs, interests and abilities (EAC, 2014, p.17). For Rwanda, teachers are specified as “facilitators” in LCP, who use personalised, participative and co-operative methods to ensure learners’ active involvement in the process (MINEDUC/REB, 2015, p.7). The changes are important, especially when education also serves to ensure socio-economic aspirations can be fulfilled.

2.2.2 Social reconstruction and positive values

Rwanda has shown strong progress in the post-genocide recovery, being ranked the ninth globally in terms of “safety and security” in the World Economic Forum (2017). Education has been assumed to play an important role in such progress. The ideas of peace, inclusivity, and combating genocide ideology are all emphasised in the CBC, with LCP as the teaching and learning approach (REB/MINEDUC, 2015a). “Citizenship and national identity” are listed as a key competence, while peace and values are among the eight “cross-cutting issues” (REB/MINEDUC, 2015b). The following values are emphasised to be permeated in all processes of schooling:

- Basic values: dignity and integrity, self-reliance, national and cultural identity, peace and tolerance, justice, respect for others and for human rights, solidarity and democracy, patriotism, hard work, commitment and resilience
- Curriculum values: excellence, aspiration and optimism, equity and inclusiveness, learner-centredness, openness and transparency, the importance of family, Rwandan culture and heritage

(REB/MINEDUC, 2015b, p.3)

As such, the learning imagined through LCP is more multi-dimensional than cognitive or academic outcomes. This is reflected in the notion of “competence” being defined holistically as a combination of knowledge, skills, attitudes, values and behaviour (REB/MINEDUC, 2015b, p.3).

The value-explicit approach is attributed to the belief that the traditional cultural elements can be revitalised as potential sources of inclusivity and togetherness. While sceptical views remain on the official narrative (to be discussed in Section 2.5), the government considers Rwanda as “one country with a common language, common culture and a long shared history” (Rwanda Constitution, 2003). The National Itorero Commission was setup in 2007 to integrate Rwandan values into national development (NURC, 2012). In additional, the absence of humane values during colonial and post-colonial education was considered as among the key causes of the conflict. Condemning the traditional values as “flouted, denigrated, defamed and weakened by colonisation and Christianity”, Musemakweli (2019) believes these new ones should serve as the foundation of the post-genocide reconstruction, as they provide “a solid foundation for the humanisation of society” and also “justice for both the victims and the perpetrators of violence” (p.10). Likewise, according to Ndabaga et al. (2017), some educational stakeholders believe cultivating values in CBC can “avoid repeating the bad history of Rwanda and as a chance to correct colonial and post-colonial political and leadership errors” (p.272).

In line with these goals, teachers are expected to serve as important “agents of change” and moral role models in the enactment of pedagogies for peacebuilding and social reconstruction (Ndabaga, Ntahomvukiye, & Omar, 2018; Rubagiza, Umutoni, & Kaleeba, 2016). Hence, teacher training includes *itorero* in line with the government priority on the moral foundation of teachers ahead of their pedagogical skills (Ndabaga et al., 2018). Model lesson plans are also provided for teachers to use LCP for integrating peace concepts and values into classrooms, such as through storytelling or role-play (MINEDUC/REB/Aegis Trust, 2018). In the process, teachers are encouraged to facilitate critical thinking and promote empathy by guiding students to recognise that “each person’s journey is different and legitimate” and hence, “fostering a sense of opening-up, acceptance and respect” (Aegis Trust, 2017, p.35) is essential. Also, LCP emphasises classroom discussion. Students are viewed as active participants rather than silent recipients of history as “evangelical speech” and thus, the aim is to redress the biases taught by the genocidal regime (Gasanabo, 2017). Yet, history can remain difficult for teachers. As Gasanabo (2017) explains, while official efforts seek accurate representation of the past events, views could be divided in the classroom when students’ families have had diverse experiences.

Alongside formal education, community-based efforts similarly work towards social reconstruction. With the community spirits of *ubumwe*, studies describe how profound support was offered to students with special needs to overcome the attitudinal and infrastructural

barriers (Karangwa, 2014; Karangwa et al., 2010). The more formalised ones, known as home-grown solutions that build on Rwandan traditions, are listed by NURC (2016b, p.4) as shown in Table 2.5.

Table 2.5

Examples of home-grown solutions in Rwanda

Home-grown programme	
<i>Itorero</i>	Civic Education programme
<i>Umuganda</i>	Collective Action
<i>Girinka</i>	One Cow per Poor Family Programme
<i>Imihigo</i>	Performance Contracts
<i>Abunzi</i>	Mediation Committees
<i>Gacaca</i>	Local Community Courts
<i>Ingando</i>	Solidarity Camps
<i>Ubudehe</i>	Community Work
<i>Umushyikirano</i>	National Dialogue
<i>Umwipherero</i>	Leadership Retreat
<i>Ndi Umunyarwanda</i>	“I am Rwandan” Rwandanness programme

While the scope of the current research is limited to LCP in formal education, it is still vital to be mindful of the dynamics between schooling and these situated programmes. For instance, studies have found the cruciality of community resources in overcoming the barriers to formal education for students with special needs (Karangwa, 2014; Karangwa et al., 2010). *Umuganda* assisted the fast-tracking construction of 8,600 new classrooms which was recognised by it receiving the 2012 Commonwealth Education Good Practice Award (UNICEF, 2012). That said, as discussed in Section 2.5, the state’s efforts in the promotion of values remain heavily disputed.

2.2.3 Human capital for economic development

Alongside social development, education is positioned to support Rwanda’s aspiration to become a globally competitive knowledge economy. This goal has been consistently reiterated in *Vision 2020* and the macro-policies, including: Economic Development and Poverty Reduction Strategies I (2008-2012) and II (2013-2018) (MINECOFIN, 2013), and the 7-year

National Strategy for Transformation 1 (NST1) following this (Government of Rwanda, 2017). Over the decade to 2018, Rwanda had already achieved robust growth, averaging 7.5% per year and with per capita GDP growing at 5% annually (World Bank, 2020). Further aspiration is set on reaching middle-income country and high-income country status by 2035 and 2050, respectively (World Bank/GoR, 2020). Rwanda also aims to position itself as the ICT hub in Africa (MINICT, 2018).

The abovementioned goals have implications for the education policies. The ESSP 2008-2012 states that the curriculum is to be focused on economic development and poverty reduction (MINEDUC, 2008a), while the next ESSP prioritises the relevance of education and training to meet labour market demands (MINEDUC, 2013). Building on these targets, the CBC supported by LCP has been introduced to “shift from the acquisition of knowledge to emphasis on its application” and also to “balance academic goals with obtaining skills for the world of work” (MINEDUC, 2020a). The curriculum includes a set of transferrable “generic competencies” applicable in real-life situations, which include: critical thinking, creativity, innovation, research, problem-solving, communication, co-operation, interpersonal relations, life skills, and lifelong learning (REB/MINEDUC, 2015b, p.8). In line with the curriculum objectives, LCP is defined as supporting students in applying “discrete skills rather than dwelling on only knowledge or the cognitive domain of learning” (REB/MINEDUC, 2015b, p.4). The assessment also states that students are required to demonstrate knowledge, skills, competencies, attitude, values and behaviour, which can be observed and measured objectively, such as doing or saying something (REB, 2020b).

However, the implementation of these ambitious goals is not free from concern. For instance, observations by Cunningham (2018) on Eastern and Southern African countries and Williams (2017) on Rwanda show that top-down educational reforms driven by political will could have little consideration of the local culture and capacity. In order to contextualise the opportunities for LCP, in the next two sections, the everyday realities teachers have to navigate in teaching and learning are discussed.

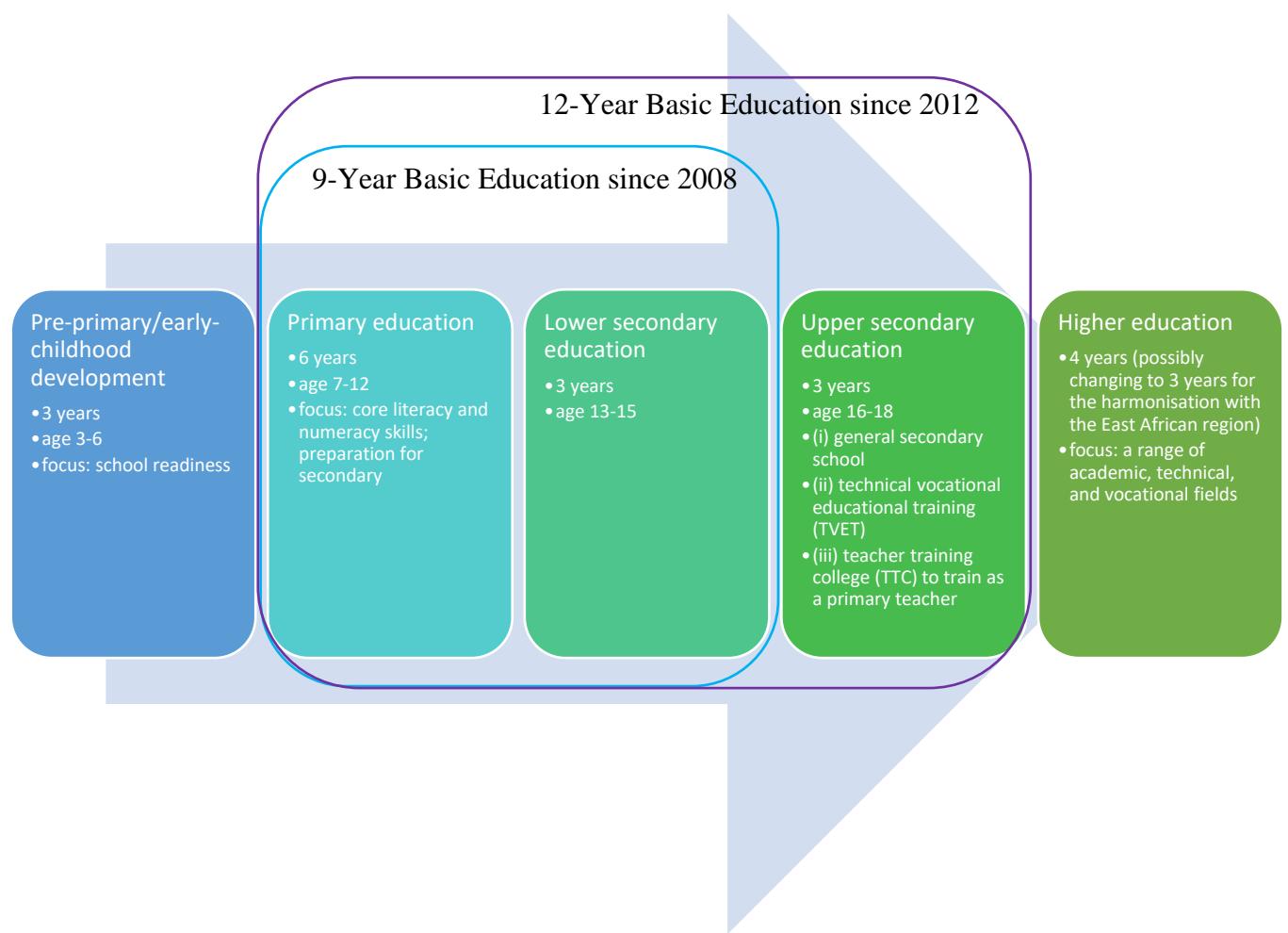
2.3 The teaching and learning environment

The structure of primary and secondary education in CBC is presented in Figure 2.2. The basic education cycle begins with six years of primary education, followed by three years of “ordinary” (O-) level lower secondary education, and three years of “advanced” (A-) level

upper secondary education. National public examinations take place at the end of Primary 6, Secondary 3 and Secondary 6. During upper secondary education, apart from general secondary education, the other options include technical vocational schools and teacher training colleges (TTCs).

Figure 2.2

The structure of education in Rwanda (MINEDUC, 2018a; UNESCO, 2015)



As of 2019-2020, the Rwandan academic year comprised three terms beginning in January, with each lasting for 11 to 14 weeks. Kinyarwanda, English and mathematics are the common compulsory subjects from primary to lower secondary education. In addition, 10 examinable subjects in lower secondary level include: physics, chemistry, biology and health sciences, ICT, history and citizenship, geography and environment, entrepreneurship, French, Swahili and English literature (REB/MINEDUC, 2015a). There are 41 periods of teaching per week, each lasting 40 minutes. Most schools have nine periods per day. Wednesday afternoon is usually made available for school activities, teacher training, or student competitions.

The common concern about the implementation LCP is on the instructional environment. Similar to the challenges encountered by most developing countries (chapter 3, Subsection 3.5.4), Rwandan schools also face a scarcity of school resources. The circumstances that put pressure on schools are presented in Table 2.6:

Table 2.6

Distribution of resources in primary and secondary schools (MINEDUC, 2019a)

	Primary	Secondary
Pupil per classroom	73	39
Schools with safe drinking water	51.8%	72.3%
Schools with on grid electricity	60.8%	76.6%
Pupil to qualified teacher ratio	1:58	1:30
Pupil to textbook ratio	1:3 to 1:6	1:2 to 1:8
Ratio of students per computer	10:1	8:1
Ratio of teaching staff per computer	14:1	4:1
Schools with internet connection	34.8%	61.1%
Schools with a library	(no official data)	54.5%
Schools with a laboratory	(no official data)	25.5%

The large class sizes has been a key concern for classroom practice. While the government-subsidised boarding schools known as “schools of excellence” are relatively well-off, with teaching resources (“Government to introduce schools of excellence”, 2011), even in the capital city of Kigali, some 12YBE schools can have lower secondary classes with around 120 students⁶. This has restricted teachers’ capacity in attending to individual learning needs and carrying out holistic assessment of individual students, as stated among the LCP principles. To tackle overcrowding, a total of 19,462 classrooms have been constructed in the last ten years, while an addition of 11,004 will be funded by the World Bank (MINEDUC, 2020a). Teacher recruitment and training are also key efforts being pursued (see Section 2.4).

Another pressing issue is the shortage of CBC textbooks (“Schools missing textbooks”, 2019). Moreover, one study points out the textbook availability does not always guarantee their effective use (Milligan, Tikly, Williams, Vianney, & Uworwabayeho, 2017). Another study

⁶This was observed during my visits to different schools during the piloting stage of the study and later confirmed through personal communication with some UR-CE teacher trainers.

found that the textbook content was possibly too heavy for learners' level, while exercises and activities did not always encourage thinking on real-life situations or developing competencies (Ndihokubwayo, 2018). While REB has attempted to provide textbooks through in-house publication and an online platform for free public access⁷, the majority of schools still require more support for internet connection and printing.

Recognising the potential of ICT, the government has put a strong focus on making resources available in education (MINEDUC, 2016; REB, 2018; UNU-IAS & MINISTR, 2006). ICT is also recognised as being at the heart of pedagogy, especially for "learner-centred and interactive methods" (MINEDUC, 2016, p.12). There have been significant contributions from programmes like One Laptop per Child since 2008, and the "Made-in-Rwanda" partnership with a Latin-American company Positivo BGH since 2015. The "One laptop per Teacher" initiative has made laptops more accessible to public school teachers (REB, 2021). Yet, some locally assembled laptops have received unsatisfactory responses due to quality issues (Bizimungu, 2018; Ntirenganya, 2020a), while many have also been stolen from schools (Kuteesa, 2019). In addition, two studies warn that access to ICT does not necessarily lead to its integration into the pedagogy. While teachers share positive attitudes towards ICT, they point out that skills and technological pedagogical content knowledge are essential for using it in teaching and learning (Munyengabe, Yiyi, Haiyan, & Hitimana, 2017). Moreover, Mukama (2009) found that teachers are likely to be influenced by peers who are active ICT users. However, in 2017, computer literacy nationally stood at just 8.4% (MINICT, 2017).

Apart from resources, the medium of instruction (MOI) is also a major factor that influences pedagogical approaches. Rwanda has four official languages, namely Kinyarwanda, English, French (Rwanda Constitution, 2003), and the 2017 addition of Kiswahili (Bishumba, 2017). The post-war period of trilingualism permitted students to choose between French or English as the MOI (Samuelson & Freedman, 2010). In 2008, Rwanda switched from French to English as the MOI for the perceived economic benefits, when it joined the EAC and the Commonwealth (Pearson, 2014). Despite retaining Kinyarwanda from 2011 onwards for lower-primary levels (Niyibizi, 2015), in 2019, a ministerial order reverted the policy to English from primary one onwards, with other languages to be taught as subjects (MINEDUC,

⁷The primary and secondary ebooks are available here, respectively: <https://www.reb.rw/main-menu/resources/primary-school-books/> and <https://www.reb.rw/main-menu/resources/secondary-school-books/>

2019b). The change has been explained as supporting students' mastery of languages for enhancing their global competitiveness.

Table 2.7

Post-genocide changes in medium of instruction policies

Year	Lower primary (P1-P3)	Upper primary (P4-P6)	Secondary and above
1996	Kinyarwanda	French or English	
2008/9	English		
2011	Kinyarwanda	English	
2016 (CBC)	Kinyarwanda	English	
2020	English		

However, the switch to English has been widely contested due to the socio-political implications as well as the practicalities of its implementation. As language proficiency can function as an index of the prohibited ethnic categories, some authors relate the switch to the continued power struggle between Francophone and Anglophone elites (Hintjens, 2008; Samuelson & Freedman, 2010). The widening rural-urban divide is also highlighted when students without an Anglophone background are placed at disadvantaged (Assan & Walker, 2012; Romaine, 2015; Samuelson & Freedman, 2010). For instance, students who could attend "schools of excellence" tend to have stronger English proficiency, as their family could afford private primary schools where better training was offered (Williams, 2019).

The language policy has had a major impact on LCP as a participatory approach. While it requires both teachers and students to have a functioning proficiency to interact in class, despite Rwandans' high extrinsic motivation, English remains as a barrier for the majority (Sibomana, 2014). A government survey in 2009 found that 85% of primary and 66% of secondary school teachers had limited English skills (Simpson & Muvunyi, 2012). While another survey conducted by British Council in 2012 (as cited in Clist et al., 2015, p.24) found that 96.8% teachers only had basic level of English, but an improvement was shown in the 2014 follow-

up assessment, with it emerging that 51% of teachers had achieved basic level, and 43.4% had reached intermediate level⁸.

Among the reasons for the low levels of proficiency is the limited usage of English beyond classroom communication. The 2012 population census indicated that, while 49% of the total population could read and write in Kinyarwanda, only about 13% can do so in English⁹ (NISR & MINECOFIN, 2014, p.42). Yet, even though Kinyarwanda is the lingua franca in Rwanda, some teachers self-reported having limited proficiency and pedagogical skills in it (Niyibizi, 2015). Besides, some schools hired teachers from neighbouring Anglophone countries, who had better English proficiency, but little command of Kinyarwanda (Tabaro, 2012). Consequently, MOI is among the reasons contributing to the low student performance, as discussed in Subsection 2.2.1. Regarding the effort made for improvement, the ESSP 2018-2013 lists English as MOI as among the priority areas (MINEDUC, 2018a). Earlier on, the DFID-funded “Rwanda English in Action Programme” (REAP) trained a total of 85,000 teachers in English language and 250 school-based mentors, from 2009 to 2011 (British Council, 2020). Another initiative on language support textbooks with modified English structure and glossaries in Kinyarwanda were shown to have improved learner outcomes by 16.09% (Milligan, Clegg, & Tikly, 2016). However, the authors also point out this requires further policy advocacy to get upscaled.

2.4 Teachers and their status in Rwanda

As any educational reform relies on committed teachers as key mediators, the realities they face also have significant influence on the implementation of LCP. Rwanda has recovered from an acute teacher shortage in September 1994, when only 45% of primary and one-third of secondary school teachers were qualified (Obura, 2003). The dire need for improvement led to the establishment of the Kigali Institute of Education, in 1999, currently the University of Rwanda-College of Education (UR-CE), which is the only public institution specialising in teacher training for secondary education (UR-CE, 2020). Teachers for pre-primary and primary levels are trained at TTCs. Usually, a diploma is the minimum qualification for teaching lower

⁸ The most current test for teacher English proficiency was scheduled to take place in October 2020. However, as of the date of submission of this thesis, the results are yet to be publicly accessible (Buningwire, 2020)

⁹ 7% are literate in both Kinyarwanda and English and about 6% in Kinyarwanda, English and French. The remaining 7% use other languages or a combination of these three languages with others (NISR & MINECOFIN, 2014, p.42).

secondary level, while a bachelor degree is compulsory for teaching upper secondary level. However, underqualified teachers may be retained since often vacancies as high as 7,000 are yet to be filled (Bishumba, 2020). Apart from the pedagogical skills, the training institutions also played crucial roles in rebuilding the psyche of teachers, who were dehumanised or devastated by the genocide (Njoroge, 2007).

In various African contexts, difficulties have been reported in attracting high performing graduates to become teachers. Teaching often remains an unfavourable or a springboard occupation with a high attrition rate. The common reasons include the low respect from society, poor working conditions, low salaries and delayed payment, lack of support and heavy workload (Bennell & Akyeampong, 2007; Giertz, 2016; Glewwe & Kremer, 2006; Mtika & Gates, 2011; Mulkeen, 2010; Welmond, 2002). Rwanda faces a similar situation with teacher motivation. In 2011, the attrition rate was evident, when it was revealed that 40% of teachers at both primary and secondary levels had less than five years of experience (World Bank, 2011b). Teachers expressed difficulties with the heavy workload of 40 weekly teaching hours, which led to limited time for preparation and reflection on their teaching (Nizeyimana, Nzabalirwa, Mukingambeho, & Nkiliye, 2021, p.64). Moreover, most teachers are uninvolved in policy-planning (Sibomana, 2016). As a result, some teachers reported implementing policies “due to the fear of the law or the consequences...but not because they are willing to do so” (Nizeyimana, Nzabalirwa, Mukingambeho, & Nkiliye, 2021, p.64).

Teachers also shared welfare concerns. Apart from the limited promotional opportunities, their working conditions are described as being significantly below those for average standard civil servants (Nzabalirwa & Nkiliye, 2012). These authors find that most teachers’ salaries were consumed within a week, with 83.8% and 86% respondents indicating their inability to afford a balanced diet or adequate housing, respectively. In 2019, teachers with advanced certificate (A2) only earned a net monthly income of Rwf44,000 (approximately £31), while those with diploma (A1) and bachelor degree (A0) received Rwf90,000 (£64) and Rwf120,000 (£84), respectively. Even with a 10% salary increment from March 2019 onwards (Ngabonziza, 2019), the amount is still believed to be inadequate to meet the estimated monthly basic needs of Rwf150,000 (Ntirenganya, 2018). Muvunyi's (2016) study has amplified the alarmingly low morale and motivation among teachers through the juxtaposition of salaries of teachers and other “low status” public civil servants:

Table 2.8

Comparison of gross salaries between A2 teachers and other “low status” public civil servants (adapted from Muvunyi, 2016, p.114)

Occupation	Gross salary ¹⁰ (Rwf)		
	minimum	maximum	mean
Driver	127,607	467,893	247,085
Secretary	216,081	360,136	288,108
Storekeeper	216,081	360,136	288,108
Security guard	163,763	163,763	163763
A2 teacher	/	59125	/

Furthermore, nurses, social workers or medical technicians can reach a salary of Rwf166,315, which is almost triple that of a teacher with the same level of A2 qualification (Muvunyi, 2016).

Facing similar concerns, teachers in various African contexts often have to engage in other income-generating activities to make ends meet (Kadzamira, 2006; Lyimo, 2014). This partly contributes to the high absenteeism found to be above 50% in Tanzania and Uganda (World Bank, 2012, 2013a, 2013b). In 2008, 40% teachers reported absenteeism in Rwandan schools, with rural schools being found particularly difficult to staff (Bennell & Ntagaramba, 2008). The rural-urban gap is partly attributed to the financial incentives. Regarding which, in the urban district of Kicukiro in Kigali city, the average total parental contribution to schools could be approximately 10 times that in the poor rural district of Nyaruguru (Paxton & Mutesi, 2012). In rural districts, teachers may also face higher teaching loads, longer travel distance, limited access to healthcare, social and professional isolation as well as challenging working conditions, such as larger class sizes (Ndabaga et al., 2017). The training opportunities also vary. In 2011, more than 80% of teachers in rural districts of Kirehe and Nyaruguru did not receive sufficient training, compared to less than 25% in Kigali city (World Bank, 2011b). Priorities were later expanded to more districts based on needs assessments. For instance, VVOB in collaboration with UR-CE and REB now has the “Leading, teaching and learning together” programme that covers 14 priority districts (VVOB Rwanda, 2018). ESSP 2018-2023 continues to devote

¹⁰ A basic salary is equivalent to at least seventy percent of the gross salary (Government of Rwanda, 2020).

priorities to teaching and learning, including the strengthening of CPD for pedagogical training and school mentorship (MINEDUC, 2018a).

The government has also noted the importance of incentivising teachers to improve the delivery of education. The Umwalimu Savings and Credit Cooperative Organisation (USACCO) was setup to provide microfinance assistance to teachers, such as subsidised credit for income-generating activities, affordable loans and various saving options (Muyombano & Mbabazize, 2016). In 2019, more subsidy of school fees for students at TTCs was introduced (MINEDUC, 2019c). TTC graduates with three years and university graduates with five years of teaching experience, now qualify for a scholarship and living allowance to pursue further academic studies (MINEDUC, 2019c). Upon the completion of CPD, teachers may also be promoted after three years of teaching, when their performance evaluation scores 70% every year (Government of Rwanda, 2020). However, those below 60% are dismissed without any terminal benefits (Government of Rwanda, 2020).

A more controversial incentive has been provided through the revitalised home-grown practice of *imihigo* “performance contract”, which holds public servants accountable and responsible for actions when they make commitments to ambitious goals (African Development Bank, 2012). A preliminary study has found that 78% of teachers share favourable opinions towards *imihigo*, and it is evident as having a positive effect on teacher presence and pedagogy in the classroom (Leaver, Ozier, Serneels, & Zeitlin, 2019). The best performing teachers may be rewarded laptops, housing, cows (MINEDUC, 2018a), and a bonus of up to 5% of their basic salary (The New Times, 2020). However, Ndabaga et al. (2017) and Williams (2017) warn against the performance-oriented incentives, which tend to shift the blame onto teachers. These authors emphasise that teachers have to be empowered by the enhanced financial and material conditions to perform well. The financial rewards can also lead to an over-competitive culture. Apart from the concern of presenting false data, the short-term demonstrable targets may be the sole focus at the expense of other goals (Klingebiel, Gonsior, Jakobs, & Nikitka, 2019).

2.5 The opportunities and challenges for using LCP in Rwanda

To explore further the opportunities for the implementation of LCP, the broader socio-cultural context needs to be considered. Notably, while some have praised Rwanda’s strong growth in post-genocide reconstruction (Allison, 2017; Ruhumuliza, 2019), a large amount of

international literature has raised concerns over the possibility of open discussion, which is important for cultivating higher-order thinking skills as per the key tenets of LCP. The centralised developmental model is seen by many scholars as authoritarianism (Hasselskog, 2015; Takeuchi, 2019). Some studies have portrayed Rwanda as a closed space with limited freedom for expression (Longman, 2017; Matfess, 2015; Reyntjens, 2016; Straus & Waldorf, 2011). The regime is often described as repressive, with many controversies remaining around ethno-linguistic politics (Hintjens, 2008; Newbury, 1998; Samuelson & Freedman, 2010); and peacebuilding (Piccolino, 2015; Reyntjens, 2011; Samset, 2011). However, Hintjens (2014) observes that the polarisation of views divided between western and local scholars lacks engagement with each other, which also risks misrepresenting the complexity and ambiguities in the social realities. A few local journalists and scholars, likewise, have expressed their scepticism regarding the potential biases, inaccuracy of facts, and the ethics of western-based researchers when writing on Rwandan issues (Butamire, 2011; Ndabaga & Gahima, 2011; Rwagatare, 2011).

Education is not free from these tensions. As described in Section 2.2, it is central to various nation-building goals, including the creation of an all-inclusive Rwandan identity. Yet, when the efforts are state-driven, many view the top-down efforts as an indoctrination of ideal values and an official narrative (Buckley-Zistel, 2009; Freedman, Weinstein, Murphy, & Longman, 2008; Hodgkin, 2006; Purdeková, 2012). For instance, Sayed et al. (2018) describes the ideal Rwandan citizen as “acquiescent, silent, accepting of the hierarchies and contours of power, and to sublimate differences” (p.241-242). History education has been a particularly difficult area. In a project entitled *The teaching of history of Rwanda: A participatory approach*, the authors assert that local educators suppress an “open” approach in “incorporating in productive and non-divisive ways the social realities of continuing ethnic identities” (Freedman, Weinstein, Murphy, & Longman, 2008, p.685). A recent study similarly argues the history syllabus only privileges the officially sanctioned narrative (Thomas & van der Kooij, 2018). While these cases seem to reflect the continuation of a top-down approach, which could be un conducive for student involvement promoted by LCP, neither study involved engaging with Rwandan actors to explore their perspectives¹¹. Ndabaga et al. (2018) did mention what constitutes as cultural values can be contested, and that the National Itorero Commission could add nuances

¹¹ Elsewhere, Ndabaga et al. (2017, p.348) have highlighted that countries can have their own concepts of peace or social cohesion, and hence, when “reflecting on how ethnicities were used to divide and destroy Rwandans, Rwandans themselves view one identity as the best model” (p.348).

to the official narrative about the possible struggles among groups in pre-colonial times. Instead of an imposition, Rutayisire et al. (2004) suggest “it is important to talk about ethnic categorisations, ethnicity, and ethnic groups, in order to express a consensus as to the truth about them as they are experienced and defined” (p.358).

In the classroom teaching and learning process, opportunities for LCP are still evident, despite doubts being raised as to whether learning was largely “passive”. King (2014) reports teachers and students being “fearful” of any discussion on ethnicity (p.141) and hence, she describes it as being tantamount to an “imposed ethnic amnesia” (p.143). Bentrovato (2016) concludes strongly the impact on students is as follows:

Young people are passive consumers of rote-learned official truths, imposed rather than embraced, and raises serious doubts about the extent to which Rwandan schools nurture independent and critical thinking. The current privileging of a top-down transmission, uncritical absorption of a definite truth (selective, simplistic, moralizing, exclusive, and unequivocal or simply silent about controversial issues) risks forging a citizenry with renewed susceptibility to indoctrination and manipulation, thus reproducing conditions that the government itself believes contributed to the genocide. (p.237)

In contrast, Mafeza (2013) found that reflective thinking was promoted in formal education, which also helped respondents to understand Rwanda’s past and stand against manipulation or discriminatory acts. Aegis Trust’s model for peace and values-based education is also reported as helpful for learners to cultivate critical thinking, empathy, and individual moral responsibility (Gasanabo, Mutanguha, & Mpayimana, 2016). More nuances have been identified in other studies about the agency and criticality for Rwandans in their engagement with state narratives, including: the everyday resistance used by peasants (Thomson, 2011); and the negotiated instead of imposed reconciliation in the traditional court of *gacaca* (Clark, 2014b, 2014a). Furthermore, Sinalo's (2019) testimonial data shows that respondents speak openly and frankly about dissatisfaction towards the regime. Both Benda (2019) and Sinalo (2019) argue that, Rwandan citizens do not uncritically reproduce government ideology, but rather, draw on government campaigns to construct their identity in positive ways. For Benda (2019), while the initial stage of political dissemination can be a top-down process, the inception stage can be a bottom-up and dialogic process.

Some informal educational programmes have similarly provided mixed evidence on whether an open space is available for student engagement. The pedagogy reported at both *ingando* “solidarity camps” and *itorero* “civic education” are believed by both authors to have promoted a conformity to the singular version of history and state-sanctioned values through lecturing (Melvin, 2013; Nzahabwanayo, 2017). The *ndi umunyarwanda*, “I am Rwandan” programme, has, however, seen mixed comments. While some reported it as promoting social stigmatisation (Blackie & Hitchcott, 2018) and forced apology as a form of control (Thomson, 2018), two studies find the otherwise, arguing that it has increased hopefulness for Rwandans about their individual lives within the nation’s future (Grayson, 2017). Sinalo (2019, p.170) believes it to be a post-colonial therapeutic approach as an alternative to the western medical model to help survivors undergo a positive identity change through “revalorizing indigenous values, culture and language”.

The different outcomes in the above formal and informal educational programmes highlight the concerns of Rwandan researchers, who have also been dissatisfied with embedded teaching practices for promoting higher-order thinking. Yet, for them, the issue is largely attributed to teachers, classroom practice and various systemic factors, instead of the state ideology. This implies teaching practice still has the potential to be improved.

Within the five years of its implementation, some encouraging signs of LCP have already been identified. Whilst one study on physics teachers found most had retained “teacher-centred” methods (Uwizeyimana, Yadav, Musengimana, & Uwamahoro, 2018), in contrast, others have identified teachers enacting “active” formats associated with LCP, including oral questioning, group discussion, performing exercises, experimentation, role play and story-telling (Nsengimana, Habimana, & Mutarutinya, 2017; Y. Sayed et al., 2018). Besides the activities, V. Nsengimana (2021) has observed teachers engaging with students’ prior experience. Another comparative study of primary and secondary teachers shows that apart from the open, joyful and respectful classroom interactions, students are also motivated to question teachers’ answers (van de Kuilen, Altinyelken, Voogt, & Nzabalirwa, 2020). Meanwhile, these authors remain cautious of the changes in teaching formats, which they point out can be rather superficial and are not necessarily sufficient for promoting higher-order thinking skills. At the university level, Schendel (2016) critiques that most lecturers use LCP formats based on their knowledge transmission orientation. The author finds that “discussions” are only for clarifying concepts and getting agreement on answers, rather than exploring multiple perspectives, with laboratory work, for example, having prescribed protocols in place.

Teacher understanding is found to be an important factor that has influenced the nature of LCP implementation in Rwanda. Studies have shown that they have rather limited understanding of the concept (Ndabaga et al., 2017), and the assessment in the CBC (Ngendahayo & Askell-Williams, 2016). Similar situations have also applied to LCP's close variants, such as the notions of learner autonomy (Uworwabayeho, 2009) and inquiry learning (Mugabo, 2015). A more recent study has found that only 20% of sampled teachers were confident with LCP, which only increased to 38.2% after training (Otara, Uworwabayeho, Nzabalirwa, & Kayisenga, 2019). The authors believe teachers have “negative” attitude towards the use and significance of LCP due to a wide range of institutional and personal factors, including the lack of clear quality indicators and prior experience with LCP among university tutors.

On the constraints of classroom teaching and learning process, as highlighted in Section 2.3, specifically on LCP, the lack of resources, teachers and students' non-mastery of the language of instruction, large class sizes, and short lesson time are noted as being key barriers (Ndabaga et al., 2017; van de Kuilen et al., 2020). Under these conditions, Nsengimana (2021) explains that strong teacher control becomes necessary to maintain discipline so as to avoid students talking and thus, interfering with the learning process. Moreover, Buhigiro and Wassermann (2017) highlight how the “teacher-centred” approach is also often preferred as a safe method for the protection of learners and society, as most have experienced genocide as a lived reality.

Despite tensions may remain at various levels, opportunities have still been shown to be possible under the challenging circumstances discussed in this chapter. These understandings pave the way for the current research to explore the implementation of LCP in Rwanda, including the surrounding issues in the education system. The next chapter explores the theoretical underpinning of LCP and the surrounding issues encountered in its implementation internationally.

CHAPTER 3 LITERATURE REVIEW: THEORIES AND PRACTICE

In the previous two chapters, I described how “Learner-centred” Pedagogy (LCP) in tandem with the competence-based curriculum (CBC) have gained prominence in Rwanda and beyond. However, as policies travel to different contexts, their meanings also evolve. Thus, in this chapter, I first address the key concept of pedagogy (section 3.1) and then, I review the multiple theoretical perspectives that have been associated with LCP and its close variants (Section 3.3). With the multiple understandings of LCP, research from the global South, in particular, raises concerns regarding its implementation (Section 3.4). In Section 3.5 the key role of teachers in mediating educational reforms is discussed. The literature has highlighted that, apart from teachers’ individual efforts, the success of reform relies on a wide range of factors, including the force of change, teacher training, the instructional environment and student needs (Section 3.6). These are important considerations for exploring the case of LCP in the Rwandan context.

3.1 Defining Pedagogy

As a start, it is important to explain how the concept of pedagogy is related to, but not reducible to, teaching and learning. It can be generally seen as “a theory of teaching and learning encompassing aims, curriculum content and methodology” (Grimmitt, 2000, p.16). Some authors use a related term of didactics to refer to propositional, diachronic anticipation of content to be taught, which is distinguished from pedagogy as follows:

It is a live processing developed in a practical and idiosyncratic situation. Didactic goals can be written down, but pedagogical experience cannot be easily theorised, owing to its unique interactive aspects. Though action research and reflection reveals the existence of basic principles underlying practical classroom experience, no matter what rules might be inferred, pedagogy still remains an adventure (Tochon & Munby, 1993, p.207).

Others attribute the difference in terminology to geographical preference. After tracing the development of German *didactics* and Anglo-Saxon *pedagogy*, Hamilton (1999) finds that they contemporarily share a similar premise that teaching is about codes as a framework for practice, and not a prescription of methods.

More metaphors have been used to capture pedagogy as a dynamic concept, rather than it pertaining to any fixed teaching techniques in classrooms. A “trinity” of streams conceptualizes

pedagogy as an art, a craft, and a science (Crawford, 2014). Nind, Curtin, and Hall (2016) outline different paradigms based on these three conceptualisations. According to the authors, “art” focuses on intuitive and responsive practices with imagination, creativity and emotion; “craft” centres on the professional action-oriented knowledge developed from day-to-day experiences; and “science” links to research-informed decision-making, such as what is found to be “good” or “effective” teaching. Murphy (2008) prefers to see pedagogy as an art more than science, while Watkins and Mortimore (1999) also refuse to define it in any format, but rather, as “any conscious activity by one person designed to enhance learning in another” (p.3). It contains reflection on the integrated concepts, ranging from views about learning, the purpose of education, epistemology of practice, teachers, classroom or learning context, and the content. Culture is further highlighted to be an influential factor in pedagogy. According to Bruner (1996):

[Education] is not simply a technical business of well-managed information processing, nor even simply a matter of applying “learning theories” to the classroom or using the results of subject-centered “achievement testing.” It is a complex pursuit of fitting a culture to the needs of its members and their ways of knowing to the needs of the culture (p. 43).

A popular and comprehensive definition of pedagogy provided by Alexander (2001) shares a similar vision on the complex considerations in pedagogy:

Pedagogy encompasses both the act of teaching and its contingent theories and debates-about, for example, the character of culture and society, the purposes of education, the nature of childhood and learning and the structure of knowledge (p.513).

Alexander (2001) explains that it is important to recognise teaching as a value-explicit moral activity in line with educational goals, social principles and operational efficacy. He then proposes six versions of teaching, and three primordial values that lead to different pedagogical styles. With this understanding, Alexander (2004) points out that the curriculum is only among the domains of pedagogy.

The complexity of pedagogical reform is often attributed to these contested values regarding teaching and learning. For instance, the widespread use of skills and competencies as learning goals identified in Chapter 1 are not undisputed. Biesta (2010) calls this phenomenon the “learnification” of educational discourse and practice, as he found that prioritising narrow

measurable outcomes have sidelined the questions about the learning of what and learning for what. It is deemed problematic to have learning implicitly decided upon in an authoritarian and decontextualised manner (Biesta, 2015, 2020a, 2020b). Others have directly critiqued the relegation of learning or education to a technocratic exercise in economic terms (Hudson, 1999; Lundvall & Johnson, 1994; Peters & Humes, 2003). The non-commercial spheres of life (Luke, 2011; Rooney, 2005), and the broader humanistic concepts for human fulfilment are found equally important (Pring, 2010; UNESCO & MGIEP, 2017). Some also argue the focus on cognitive skills reflects a Eurocentric bias (Oppong, 2015), which also leads to an “abysmal of ignorance” (Balogun, 2008, p.126). In recognition of the diverse views, Aldridge (2012) questions how the syllabus can reconcile the tension between different aims, content, and methodology in terms of questions regarding “what works”, and also crucially, “to what end”. These pave the way for exploring LCP and its enactment from a contextually sensitive perspective.

Acknowledging the above concerns, the frameworks that attempt to define LCP tend to be comprehensive. For instance, the American Psychological Association (1997), based on research evidence and practice as well as the desire to guide educational reform and school redesign, has proposed fourteen “learner-centered” psychological principles according to four categories: (1) cognitive and metacognitive factors, (2) motivational and affective factors, (3) developmental and social factors, and (4) individual difference factors. Another framework that contains seven minimum standards of LCP was proposed by Schweisfurth (2013) as follows:

- Lessons are engaging and motivating for students
- The atmosphere and conduct reflect mutual respect between teachers and students
- Learning challenges build on learners’ existing knowledge
- Dialogue and not only transmission is used in teaching and learning
- Curriculum is relevant to learners’ lives and perceived future needs, in a language accessible to them
- Curriculum is based on skills, content, and attitude outcomes, including critical and creative thinking
- Assessment follows these principles and allows for individual differences beyond content-driven or rote-learning

(adapted from Schweisfurth 2013, p.146)

Moreover, LCP is also often described as an approach to achieve curriculum goals, rather than a set of prescribed practices in itself. It is thus important to understand the rationale of the competence-based curriculum below.

3.2 Competence-based curriculum

The competence-based approaches are often traced to the performance-based teacher training models in the USA in the 1960s and 70s (Brown, 1994; Hodge, 2007) and K-12 education (Nodine, 2016). They also reflect an accountability movement in which education has been questioned regarding its adequacy for preparing students for life roles (Evans, 1992; Tuxworth, 2005). In the UK, the CBC can be found in the National Vocational Qualifications in 1980s-90s, during which a “new vocationalism” in education called for upskilling youths to meet the needs of employers and to overcome post-war unemployment (Williams & Raggatt, 1998). A comparative study of England, Germany, France and Netherland noted similar motivation of shifting to the CBC for improving students’ school-to-work transition, upward mobility and lifelong learning beyond formal settings (Weigel, Mulder, & Collins, 2007). The CBC has become particularly popular among technical disciplines in higher education, which require not merely the regurgitation of facts, but also, the application of learnt knowledge. These include, but are not limited to: medicine (Frank et al., 2010; Malone & Supri, 2012); social work (Damron-Rodriguez, 2008); nursing and midwifery education (Muraraneza, Mtshali, & Mukamana, 2017); business (Dragoo & Barrows, 2016) and engineering (Cruz, Saunders-smits, & Groen, 2019).

While the meaning of “competence” has evolved over years and varied across contexts, the focus is on it being measurable. For instance, on the closely-related outcome-based education, Spady (1994, p.2) defines outcomes as learners showing their competence through “tangible application” instead of values, beliefs, attitudes, or psychological states of mind. Earlier Ainsworth (1977) described a prescribed list of operational know-how at a set level of adequacy under particular conditions. Others, however, argue against a technicist conceptualisation on competence, as for them, real-life complexities cannot be broken down into discrete abilities and characteristics (Malone & Supri, 2012; Norris, 1991; Tuxworth, 2005; Westera, 2001). Accordingly, some researchers define competence dynamically and pluralistically in relation to each individual’s professional judgement or conception of practices (Gonczi, 1994; Velde, 1999), and socially valuable outcomes (Chehayl, 2010). More holistic definitions are also seen in Gervais (2016) and Hébrard (2013). For instance, Gonczi (1994) defines competence as a complex combination of attributes, including knowledge, attitudes,

and skills, with the incorporation of ethics and values for reflective practice in one's performance. Mulder's (2001, p.152) comprehensive understanding of competence similarly includes integrated performance-oriented, cognitive, interactive, affective, and psychomotor capabilities as well as attitudes and values. Building on this trend, UNESCO's definition of a competency-based curriculum emphasises comprehensive learning goals comprising:

The complex outcomes of a learning process (i.e. knowledge, skills and attitudes to be applied by learners) rather than mainly focusing on what learners are expected to learn about in terms of traditionally-defined subject content (UNESCO-IBE, 2013, p.12-13).

Their definition specifies the curriculum to be "learner-centred" and "adaptive to the changing needs of students, teachers and society", so that learning helps students to "acquire and apply the knowledge, skills and attitudes to situations they encounter in everyday life" (UNESCO-IBE, 2013, p.12-13). Due to the broad definitions, this leaves space for specific contexts to define the valued outcomes to be cultivated through LCP.

3.3 The theoretical underpinning of "Learner-centred" Pedagogy

Despite the available frameworks (Section 3.1), LCP remains an ambiguous concept associated with a constellation of theories. In the literature about instructional design, often the labels of "learner-centred", "student-centred" and "child-centered" are used interchangeably. Some authors prefer the term "child-centred", with reference to child development theories that see childhood as a unique stage of growth compared to older learners (van Harmelen, 1998). However, these labels remain ambiguous. For instance, Chung and Walsh (2000) found 40 meanings of "child-centered". They explain its meaning evolved from Froebel's view on the child at the centre of the world, to the developmentalist belief that the child is the centre of schooling, and later to the progressive notion that children should direct their activities. Weimer (2002) identifies a wide range of literature that inspired "learner-centred" instruction from critical, radical and feminist pedagogy, to constructivism, and psychology. She then describes five key themes to support LCP on reconceptualizing: balance of power; function of content; the role of teacher; the responsibility for learning; and the purpose and process of evaluation (Weimer, 2002). Another comprehensive work by Schweisfurth (2013) traces LCP to three narratives, including the "cognitive" narrative about human cognition, the "preparatory" narrative about equipping students for contemporary and future life and lastly, the "emancipatory" vision against oppressive forms of control. Neumann (2013) similarly identifies three contours of 'student-centredness', namely the education centred *in, on, and*

with students with reference to theoretical ideas of Rousseau, Montessori, Dewey and Freire. The different contours differ in conceptualising learning in the extent of student choice, content ownership, and flexibility when conducting inquiry. These reviews show that LCP refers to an eclectic tradition of ideas, and do not coherently refer to the same theories or practice.

For studies that focus on classroom teaching and learning practice, multiple authors refer to constructivism as the backbone of LCP methods. Some describe LCP as sharing the constructivist epistemology (Hannafin, Hill, & Land, 1997), whilst others write about the constructivist theory of learning (Hein, 1999; Schweisfurth, 2013; Starkey, 2017; Vavrus & Bartlett, 2012). They associate LCP with the work of Piaget (1970) and Vygotsky (1978) on human cognition. In contrast to the behaviourist view, they see learning as an “active” process centred on the learner with varying emphasis on the individual or social dimension. Vygotsky’s “Zone of Proximal Development” (ZPD) conceptualises learning as the process of problem-solving assisted by adults or more capable peers (Vygotsky, 1978, p.86). Teaching is then redefined as “assisting performance” (Tharp & Gallimore, 1988, p.31). A similar concept is found in Jerome Bruner’s “scaffolding”, which sees learning as an intersubjective co-construction of meaning between the learner and the “facilitator” (Bruner, 1996). More evidence points to learning without requiring direct instruction from teachers. These include the notion of “situated learning” in apprenticeship communities (Lave, 1982, 1996, 2010) and out-of-school children demonstrating capacity for multiplicative and correspondence reasoning in context-relevant ways (Nunes, Schliemann, & Carraher, 1993; Saxe, 1988).

Based on these findings, the constructivist-inspired methods encourage teachers to build on students’ prior socio-cultural experience (Gray & MacBlain, 2015; Muir, 2018), and to foster student inquiry through exploration, investigation, questioning, and challenging beliefs, rather than getting pre-determined answers “correct” (Hein, 2001). In accordance with these practices, authors like Baeten, Dochy, and Struyven (2012) emphasise student-centred learning in contrast to the “traditional” or “teacher-centred” approach. Table 3.1 below summarises some features of LCP under the constructivist lens in comparison to some behaviourist beliefs.

Table 3.1

Comparison of behaviourist and constructivist ideas

	Behaviourism	Constructivism
Learning	Transmission-focused, with teachers delivering pre-determined content (Hassad, 2011; Le Fanu, 2013).	Individuals create own meaning from individual or social experiences in their interaction with the environment (Gray & MacBlain, 2015; Yamagata-Lynch, 2010).
Learning motivation	Extrinsic	Intrinsic
Evidence	The formation of stimuli-response pairs through the classical conditioning experiments (Pavlov, 1902/1997) and operant conditioning (Skinner, 1948)	<ul style="list-style-type: none"> • Meaning-making using the mechanism of assimilation and accommodation (Piaget, 1970). • “General genetic law of cultural development” (Vygotsky, 1978)
Example instructional methods	<ul style="list-style-type: none"> • Didactic, chalk-and-talk, and whole-class drilling (Schweisfurth, 2013); listening, rehearsing and reciting (Scheurman, 1998) • Use instructional cues as stimuli to prompt the delivery of responses and reinforcement to strengthen the correct response (Ertmer & Newby, 2013) 	<ul style="list-style-type: none"> • Explorative (Heyd-Metzuyanim, Tabach, & Nachlieli, 2016) • Play-based (Niland, 2009) • Inquiry-based (Keiler, 2018) • Self-paced and self-directed learning (Daniels & Perry, 2003) • Collaborative learning in groups and forming a community of learners for peer support (Applefield, Huber, & Mahnaz, 2001).

Apart from learning theories, LCP is also associated with political beliefs. For instance, Beckett (2018) and Yilmaz (2009) refer to John Dewey’s progressive education movement, which inspired a “child-centred” pedagogy to promote democratic ideals. Dewey treasures education not only for discussing, but also, for demonstrating democracy in practice. He critiques the authoritarian nature of traditional schools as “one of imposition from above and from outside” (Dewey, 1986, p.243). He instead, proposes the idea of “learning by doing” (Dewey & Dewey, 1915), which values children to be apprenticed through democratic and collaborative meaning-making processes (Mayer, 2008). Hence, rather than a “spectator”, the learner acts as an actor, who learns by being an intimate participant in the activities (Dewey, 1916, p.338).

Neo-liberalism is found to be another force of influence on LCP. Sriprakash (2006) highlights how the “child-centred” pedagogy in India has value-laden beliefs regarding the social, economic, and political assumptions of education, such as the neo-liberal understanding of developmental paradigm. The neo-liberal reading of “student-centred” is found to be underpinned by consumer orientation, with teachers serving and satisfying students as customers (Weimer, 2002, p.xvi). Similar discussion is found in Jackson's (2015) study in the United Arabs Emirates and Susar's (2014) case in Turkey.

In contrast, Tangney (2014) and Starkey (2017) find that student-centredness is underpinned by a “humanist” vision on learning. Tangney (2014) traces the ideas to Freire, Mezirow, Rogers and Freiberg, among others, who value the holistic education for students to build self-confidence and self-belief, which is also a form of empowerment in consideration of oppression and social transformation. Starkey (2017) uses the term “humanist” slightly differently to mean teachers knowing students as individual humans, but she also includes the “agentic” dimension that similarly focuses on empowering students. This association of LCP with empowerment is informed by Paulo Freire’s critical pedagogy (Schweisfurth, 2013; Starkey, 2017; Tangney, 2014). Freire calls the transmissive approach the “banking model” in which students are objectified as “empty vessels” for control and domination (Freire, 1970). He, thus, advocates *conscientização* “conscientisation”, which is a problem-posing pedagogy aimed at promoting consciousness through *praxis*, this being a combination of “reflection and action upon the world in order to transform it” (Freire, 1970, p.51). Teachers and students are to acquire critical reflexive capacities to unravel the oppressive structures and practices (Giroux & Giroux, 2006; Shor, 1992). Through demystification of the truth and power structure, this allows the oppressed to be their own liberators (Apple & Au, 2009; Coghlan & Brydon-Miller, 2014). Regarding post-colonial countries, the desire for democracy is further reflected by the use of LCP in the national discourse of post-apartheid South Africa (Booyse & Chetty, 2016) and post-independence Namibia (Erixon Arreman, Erixon, & Rehn, 2016).

The pedagogical implication for LCP for authors drawing on Dewey and Freire may appear similar. For democratising pedagogical relations, the idea of “learning by doing” encourages students to become involved in hands-on activities, problem-solving, and experimental inquiry, in place of a false dualism of a mind-body split (Hickman, 2009; Radu, 2011; Waks, 2017). By promoting non-hierarchical teacher-student relations, the aim is to redress power imbalance (Thomas, 2009; Wink, 2011). In Oyler and Becker's (1997, p.454) description, teacher

authority changes from a “rock” to a “soft place”. This encourages teachers to take a more friendly and counsellor role (Tudor, 1993), with a more sympathetic understanding of students (Kaplan, 2016). While student involvement is similarly preferred as in the constructivist approaches, under critical pedagogy it is not merely a technique for cognitive development. Dialogue is epistemologically understood as a social way of knowing, and not a mere tactic to involve students in a particular task (Freire & Macedo, 1995, p.379).

3.4 Concerns with implementing LCP in classrooms

The implementation of LCP requires the translation of some of the abovementioned pedagogical implications into classroom practices. However, various scholars have warned that most of the theories discussed in Section 3.3 emerged from philosophical ideals and are not necessarily based on classroom realities (Davis & Sumara, 2002; Meadows, 2006; Tobias & Duffy, 2009; Wood & Bennett, 1998). They recommend leaving standards open to differing interpretations, hence requiring adaptions to different contexts.

In the literature of LCP, evidence from African countries among other low-resource contexts has raised particular concerns over its feasibility. There remains a lack of evidence that competence-based approaches, including LCP, are superior to others (Gauthier, 2013; Tuxworth, 2005). For instance, in Benin, with contextual constraints and disappointing outcomes, sceptics have questioned the potential of this reform to solve the educational and socio-economic problems, with some accusing the innovation of propagating indiscipline, laziness and incompetence among the youth (Yessoufou, 2014). At best, only patchy results are found on using LCP to improve learning outcomes (Lassnigg, 2015; Schweisfurth, 2013; Westbrook et al., 2013). The following subsections explore the reasons for this.

3.4.1 Cultural variation in pedagogical approaches

Many studies drawing on East Asian and African contexts raise concerns over the compatibility of LCP with the local context. In various under-resourced African countries, some authors have observed the continuation of the “traditional” or “teacher-centred” approach, where there seems to be a retention of rote-learning, chalk-and-talk and choral response (Hardman, Abd-Kadir, & Smith, 2008; Hardman, Stoff, Aung, & Elliott, 2016; Kiramba, 2014; Mwelese, 2014; Paulo, 2014; Pontefract & Hardman, 2005; Song, 2015; Thomas, 2013). In a recent review of 57 articles or government documents, the authors highlight how teaching in African countries

remains “teacher-centred”, with little integration of everyday concepts (Nsengimana, Mugabo, Hiroaki, & Nkundabakura, 2020).

However instead of pointing to the “failure” of educational reform, studies call for a more nuanced understanding of the realities to account for the prevalent practices. As stated in Section 3.1, pedagogy has multiple dimensions, including culture¹², which can lead to major tensions with varying degree of confrontation between LCP and existing norms. Some worry that the ideal student and methods in LCP have overgeneralised western middle-class tradition, which focuses on the individual as a free thinker engaging in self-governance (Guthrie, 1980; Lee & Tseng, 2008; O’Sullivan, 2004). In Croft’s (2002) words, LCP in Malawi is “favouring the visual and individual and ignoring the oral and collective” (p.198).

A large volume of comparative studies about learning in western and eastern contexts has provided evidence that learning format is culturally relevant and that no format is universally the “best”. With East Asian countries’ strong performance in international assessments, like PISA and TIMSS (Sellar & Lingard, 2013), some researchers have debunked the stereotypes of East Asian students or those from “Confucius Heritage Culture”. They are generally known for the “passive” learning style, including silence, unquestioning obedience, teacher authoritarianism, and rote-learning methods (Biggs, 1994; Kennedy, 2002; Nинnes, Aitchison, & Kalos, 1999; Tran, 2013; Watkins & Aalst, 2014). These authors similarly explained the “teacher-led” or whole-class instruction reflects the collective desire for efficient learning from teachers as role models. Hence, instead of addressing individual student needs, in-class time is desired for maximising and equalising opportunities for everyone to learn from the teacher, who is expected to be a knowledgeable “well-prepared guide” (Kim, 2013; Ornstein, Levine, & Gutek, 2010; Stevenson & Lee, 1995; Toh, 1994; Yeung, 2009). This learning style can be empowering in those contexts and is not necessarily oppressive (Toh, Ho, Chew, & Riley, 2004). The teacher-student relationship is also not simply top-down. It has assumed a reciprocal responsibility, with teachers showing maximal care and concern for students, with their conforming and performing accordingly (Cortazzi, 1998). One piece of comparative research on English and Chinese classrooms has suggested that Chinese teachers may have even more

¹² The variety of cultural orientations can be viewed as a spectrum varying between societies that value individual abilities and uniqueness, while others may treasure interdependency, and respect for the status-quo (Hofstede, 1986; Hofstede & Bond, 1984; Schwartz, 2006) These values are also reflected in the ideal learning. However, an important caution is noted by Wolcott (1991) that culture is attributed to and is often overgeneralised. Such classification would risk essentialising and homogenising cultures as fixed patterns, further leaving out possibilities for hybridity (Wainryb & Recchia, 2013). Hence, the possibility of cultural change must not be denied.

meaningfully enacted child-centred principles compared to their English counterparts (Miao & Reynolds, 2018). This is achieved by spending longer time on whole-class interaction, rather than interacting with individuals and assigning independent work, as the latter risks excluding some from equal learning opportunities.

Furthermore, rather than labelling pedagogical strategies like lecturing as “passive”, some authors emphasise the need to value a range of methods. “Surface” and “deep” learning strategies are utilised for different pedagogical purposes (Leung, Ginns, & Kember, 2008). For instance, “repetition” or “recitation” is among the meaningful strategies that can facilitate the formation of a knowledge base and deepening the impression in the mind, which is the pre-requisite for deep understanding and critical reflection (Dahlin & Watkins, 2000; Kember, 2016). Furthermore, Li (2015) points out how Chinese culture values the inner dialogic “reflective” thinking as opposed to the externally observable “critical” form. This is attributed to thinking not only being seen as a cognitive skill, but also, as virtuous conduct for relating an individual’s reflection to collective interests (Li & Wegerif, 2014). Personalised learning or disagreements tend to be addressed in private conversations with teachers, or the flourishing business of “shadow education” (Bray, 2007, 2013; Kim, 2016; Liu, 2001; Renshaw & Volet, 1995). With a similar concern about the “face” concept, cooperative learning in Vietnam has shown that visible confrontations or fierce discussion is often avoided in respect of harmony (Nguyen-Phuong-Mai, 2019). Chorused response similarly does not necessarily imply passivity. Watson (2002) argues that apart from this being a useful strategy for deepening memory and improving fluency, it is also a strong signal of social inclusion and an invitation for participation. Similarly observed in Malawi, this can enact the strong cultural collectiveness, which can meet the socio-cultural and emotional needs of children (Croft, 2002).

A few accessible studies have similarly revisited the deficit understanding of learning strategies in African contexts. As most traditional African societies were oral cultures, without written materials, the sustainability of knowledge relies on “rote-learning” in the sense of intergenerational transmission (Brock-Utne, 2000b; Ki-Zerbo, 1990). Teachers, among other elders in the region, generally are, thus, respected as referent sources of learning based on their vast experience, expertise and wisdom (Adeyemi & Adeyinka, 2002; Ezeanya-Esiobu, 2019; Mosweunyane, 2013). They are known as the “cardinal depositories” in Malawi (Banda & Morgan, 2013). Moreover, in the Ethiopian orthodox tradition, oral exposition is valued to maintain the stable body of knowledge (Serbessa, 2006). Building on these observations,

Guthrie (2018) explains that the learning in cultures with “revelatory epistemology” hold a view that knowledge comes from deities and ancestors. This leads to what he calls a formalistic approach, which is in paradigmatic variation with cultures where scientific epistemologies support knowledge discovery, as valued in LCP. Termed by Guthrie as “progressive education fallacy”, he challenges the false premise that progressive, enquiry-based methods are necessarily better to promote intellectual or cognitive development across cultures. Tabulawa (2013) views learner-centredness and teacher-centredness as two diametrically incompatible paradigms with different assumptions about knowledge and learners. Hence, both Guthrie and Tabulawa argue that LCP as a rational-technical approach to pedagogical change may not be effective for various African contexts.

Lastly, the valued learning outcomes also vary across cultures. The learning of moral values may be equally important alongside individual cognitive development. In Chinese education, *li* “the Rite” is emphasised for formalities and conformity to values, norms and discipline (Kwak, Kato, & Hung, 2016). In some African contexts, learning is expected to be holistic for nurturing values, like honesty, dedication, loyalty and respect for authority, as part of socialisation (Adekunle, 2007; Bamwesiga, Dahlgren, & Fejes, 2012; Omolewa, 2007; Rutayisire et al., 2004). Hence, children are expected not only to develop reflective thinking, but also, dispositions to “think well” (Ndofirepi, 2011). Learning places emphasis on relational morality and communal responsibility as well as the shared history, language, customs and values (Adeyinka & Ndwapi, 2002; Owuor, 2007), which can be illustrated in the traditional proverbs in Kenya and Nigeria (Dei, 2014; Dei & Simmons, 2011). These values would influence the choice of pedagogical strategies.

Consequently, tensions are common in LCP reforms when existing norms do not fully align with LCP tenets. Brinkmann (2015) found that, in the Indian context, teachers’ various cultural beliefs correlate with their use of LCP. For instance, those believing some students were less capable of learning were found less likely to use LCP. As students become more “active”, teachers using LCP have sometimes reported feeling the loss of control of the class (Lai, Gu, & Hu, 2015), especially in cultures where students are expected to see “seriousness” and discipline as an inherent part of learning (Bartlett & Mogusu, 2013). The use of questioning would be considered as teachers shirking responsibility and reducing their knowledgeability, as observed in Tanzania (Vavrus, 2009) and Kyrgyzstan (de la Sablonnière, Taylor, &

Sadykova, 2009). In Lesotho, with the preference for a structured learning sequence, teachers value uniformity in activity over individual expression and “noise” (Khoboli & O’Toole, 2011).

3.4.2 The equity paradox

The emerging equity issues following the use of LCP are also of concern. Some educationalists have highlighted the influence of neo-liberal values that often lead to the practice of competitive individualism (Ball, 2003; Enslin, 2017; Olssen, 2016; C. Williams, Gannon, & Sawyer, 2013). The narratives of learner autonomy and life-long learning in LCP are often reappropriated as processes of responsibilisation for students to self-govern their learning (Fendler, 1998; Kelly, 2010; Rodríguez, 2013; Sriprakash, 2006). They then worried whether LCP would favour children from privileged backgrounds. Using Bernstein’s terminology, LCP is often seen as closer to what he calls an “invisible” pedagogy, which pre-supposes middle-class norms and architecture and thus, working class children can be disadvantaged (Bernstein, 1975, 2003). The same disquiet has been expressed on the ideal competencies, which are different from working class values (Takayama, 2013).

The equity concern is reflected in some classroom observations internationally. A study in Wales found that the usage of LCP, such as open questioning and peer collaboration in affluent schools, was observed twice as often as in the poorest schools, where direct instructions was the most predominant (Power, Rhys, & Taylor, 2018). In Turkey, with an examination-oriented system in place, educated parents who are well-off could complete the assigned LCP activities like “research” for students (Altinyelken, 2011). In Denmark, Andersen and Andersen (2017) observed that dialogic instructional strategies widened the gap between the already stratified learning outcomes according to students’ socio-economic backgrounds. Black (2004) observed that, in the UK, underprivileged students tended to have unproductive participation, which was reinforced by teachers’ differential expectation and hence, legitimised their marginalisation. In South Africa, Nykiel-Herbert (2004) reported that underprivileged students from the same community with a similar background had little to contribute to each other’s learning.

Specifically on group work, which is a common LCP method, the “rich club” phenomenon in US colleges highlights the routine exclusion of low-achievers (Vaquero & Cebrian, 2013). Two studies at universities in South Korea (Lee, Kim, & Byun, 2017) and the USA (Marbach-Ad, Rietschel, Saluja, Carleton, & Haag, 2016) confirmed the distress faced by high-achievers, who wanted to abandon collaborative work to ensure higher grades. Similar dynamics was noted for

other education levels. In England, while mixed-attainment grouping is appreciated by students at low-attainment level, some have expressed a feeling of humiliation (Tereshchenko et al., 2018). High achievers have been found to be dissatisfied as they feel burdened by “loads of questions” from others “at different stages”, who are “hard to cooperate with” (Tereshchenko et al., 2018). In Botswana, low-achievers were frustrated with not being able to understand subject matter and the speed of high-achievers (Mungoo & Moorad, 2015). They were reported as being less involved and only taking subservient roles. Similar observations were made in Singapore, where students had low interest and high absenteeism in group discussions, only making trivial, if not irrelevant contributions (Koh, Tan, Wang, Ee, & Liu, 2007). Willson (1999) also observed in Australia that their quality and frequency of participation was different from high-achievers. These observations raised worries over the widening learning gap, where high-achievers can benefit from collaborative learning at the expense of their lower achieving peers.

Gendered differences in participation were also observed in a Canadian context, when teachers were found to be interacting more with male students, despite their not having initiated more interactions than female ones (Duffy, Warren, & Walsh, 2002). In contrast, Myhill (2006), in the UK, found that low achievers and boys are least likely to participate in positive classroom interactions. In Laos, gendered roles were found to be entrenched in that teachers saw female students as being shy and quiet (Chounlamany, 2014). In Wales, girls were reported to enjoy warmer interactions with adults and were more engaged in self-directed learning activities as well as collaborative ones than boys (Power et al., 2018). These lead to the argument that equity is more likely to be achieved in a structured and orderly teaching, with explicit instruction drills and practice (Coleman, 2001, as cited in Hirsch, 2001). Some research has suggested that direct or explicit teaching brings more benefits for learners from disadvantaged backgrounds (Gauthier & Dembélé, 2005), which was also found to be the case for low-performing students in the Netherlands (Kroesbergen, 2005); and learners with special needs in Australia (Rowe, 2003).

Lastly, in rural and poorer regions, students are usually expected to share household responsibilities (Levison, DeGraff, & Dungumaro, 2018; Njie, Manion, & Badjie, 2015). This affects the extent to which students can have sustained engagement with academic activities (Masitsa, 2008). In Kenyan public schools, Metto and Makewa (2014) expressed the view that the most underprivileged students may not have the capacity to acquire the necessary knowledge, skills, and motivation to engage in LCP.

3.4.3 LCP activities and learning

Further concern is raised as to whether the implementation of LCP can support learning in various African contexts. Altinyelken (2010) observed some Ugandan teachers having undergone “formalistic adoption of the policy”, but where tight teacher control still remains. Some South African teachers were similarly described as superficially following learner-centred methods (Nykiel-Herbert, 2004). Bartlett and Mogusu (2013) found that some Tanzanian teachers adopted some LCP vocabulary, such as “facilitator”, “guide” and “discovery”, but they did not necessarily share the constructivist assumption about the nature of knowledge. This was similarly questioned by Schweisfurth (2013a, p.50), who contended that “group work” can be merely about changing seating arrangements. A World Bank report questioned the nature of “learner-centred” lessons that contained “muscular activities rather than the intended cognitive ones” (World Bank, 2008, p.45). It was noted that the changes in these African classrooms were almost “symbolic displays” being “misperceived as the core of the pedagogical shift” (World Bank, 2008, p.45).

Notably, difficulties were found in translating the constructivist epistemology into classroom teaching. Studies have reported that practitioners often understood epistemic relativism as to accept all individual beliefs as knowledge, without rational warrant or verification (Hyslop-Margison & Strobel, 2007; Matthews, 2003; Phillips, 1995; Van Bergen & Parsell, 2019). This has led to the concern that dangerous views, such as prejudices, naïve concepts and misconceptions can go unchallenged (Rowlands & Carson, 2001; Terwel, 1999). Jaworski (1994), thus, argues for teaching to focus on the way we come to know, rather than the knowledge itself. Five typical misunderstandings were also reported in constructivists teaching, namely: unplanned lessons, lack of clear goals, absence of structure, treating any social interactions as indicating learning and teachers playing less important roles (Applefield et al., 2001). Apart from teachers’ understanding, students were seen left to do physical activities or to teach themselves without teacher guidance (Gordon, 2009; Kirschner, Sweller, & Clark, 2006; Krahenbuhl, 2016). These shortcomings were found to have affected academic rigour and learning benefits.

To support learning, Brodie, Lelliott, and Davis (2002) highlight the importance of the distinction between LCP as a pedagogical *format* or procedures from its *substance*, which pertains to principles. On educational changes, Fullan (2007) emphasises the distinction between “deep” rethinking in existing philosophy about the meaning of such changes beyond

“surface” ones. This is also supported by Alexander (2013), when he points out that only “deep structure” pedagogical change can achieve meaningful outcomes. Prawat's (1992) “naïve constructivism” and Mayer's (2004) “constructivist teaching fallacy” both have the intention of warning against equating “active” and “passive” learning based on the instructional formats used, rather than cognitive activities.

Moreover, direct instruction is still evident as being a valuable learning strategy. For students from elementary schools in the US, those learning from direct instruction were found to be as proficient as peers engaging in discovery-learning, when they were asked to demonstrate richer, more authentic, scientific judgments (Klahr & Nigam, 2004). Kirschner, Sweller, & Clark (2006) and Kirschner (2009) argue that novice learners with limited working memory require different learning strategies than experts. This explains why using the constructivist epistemology, which is used by domain experts as a pedagogy for that domain, will not work well. Frequently overlooked, is also the importance of foundational content knowledge and basic research skills for learning, which can be more effectively taught through direct instruction (Coe, Aloisi, Higgins, & Major, 2014; Khalil & Elkhider, 2016; Massouleh & Jooneghani, 2012; National Research Council, 1999) This has been found essential for supporting the later transfer of learning to new situations and developing advanced skills, like critical thinking and problem-solving. A review of 328 studies was in consistent with earlier research in support of the effectiveness of direct instruction (Stockard, Wood, Coughlin, & Khoury, 2018).

3.4.4 Depolarising pedagogical approaches

Attending to the various concerns on cultural variation, equity, and learning value, studies recommend seeing beyond any model as a universally effective pedagogy (Alexander, 2008; Di Biase, 2018). Teachers have been recommended to seek a balance between engaging students in active discovery and using direct instruction, guidance and feedback (Clark, 2009; Fernando & Marikar, 2017). These are manifested in terms like: “guided inquiry-based learning” (Kang & Keinonen, 2018), “enhanced-discovery tasks” (Alfieri, Brooks, Aldrich, & Tenenbaum, 2010) and “guided discovery learning” (Honomichl & Chen, 2012). It has been similarly pointed out that guidance and feedback for scaffolding are essential for enhancing students' achievements and interest to engage in their learning.

LCP can also take a range of formats based on factors such as students' capacity, needs, prior experiences, foundational knowledge, learning progress, subject of inquiry and contextual realities (Crossley, 2000; Ertmer & Newby, 2013; Kain, 2003; Ladson-Billings, 1995; Mascolo, 2009; Richardson, 1997). Croft (2002) uses a continuum to conceptualise teacher/learner-centred against the individual/collective axis. Schweisfurth (2013a) represents LCP with a series of continua in terms of techniques, teacher-student relationships, learner motivation, and epistemology. Vavrus (2009) prefers "contingent constructivism", while O'Sullivan (2004), Evertson and Neal (2006), and later, supported by Brinkmann (2019), all support exploring "*learning-centred*" education rather than uncritically embracing any single approach. This was shown among teachers in Tanzania, who despite appreciating LCP, still had a mixed palette of techniques and ideas (Barrett, 2007). On the local variations of LCP, some argue that "teacher-directed and learner-engaged" approaches are not necessarily mutually exclusive. Instructional strategies can ground learner-centredness within "teacher-centred" practices (Schuh, 2004; Tan, 2015). Hausfather (2001) and Prakash (2010) similarly argue how lectures could be compatible with constructivist principles, such as factoring in the group's prior experiences, and engaging learners with systematically designed questions. Mok and Morris (2001) reported the purposeful use of group work, questioning along with a combination of enriching tasks and exercises. All of these authors underscored the importance of engaging with teachers to determine the most appropriate LCP strategies.

3.5 Teachers as reform mediators

The above discussion suggests that the implementation stage would appear to have involved recontextualising LCP. New meanings have often been found attached to global models owing to the influence of local politics, culture and tradition (Anderson-Levitt, 2003, 2012; Ball, 1998; Nordin & Sundberg, 2016; Schriewer, 2012). For instance, a stage of "indigenisation" is included in Phillips and Ochs' (2004) model of policy borrowing. With a similar argument, Schweisfurth and Elliott (2019) build on an earlier term of "pedagogical nexus" used by Hufton and Elliott (2000) to insist that any new practice will be recontextualised and such a pattern will also remain resilient over time. Teachers are, thus, the key mediators in the process of pedagogical change.

Educational change, as Fullan (2007) highlights, "depends on what teachers do and think – it's as simple and complex as that" (p.129). Lipsky's (2010) concept of "street-level bureaucrats" also captures how teachers among other public servants have agency to make policy, despite

this being in the informal sense, as well as implement it. Morris and Scott (2003) find that the implementation is unlikely to be successful, if the importance of street-level bureaucrats is not taken into account. Using another concept of appropriation, Levinson, Sutton, and Winstead (2009) similarly highlight how actors engage in the creative interpretive practice involved in the policy process, and hence, make new policy in situated locales and communities of practice. These views have been supported by studies showing how teachers could merely assimilate reform messages as “token adoption” of prescribed practice (Tudor, 2001; Yerrick, Parke, & Nugent, 1997), while others may accommodate, modify, resist or create alternatives to the prescribed orders (Maguire, Braun, & Hoskins, 2011; Brain, Reid, & Boyes, 2006; Ginsburg, Kamat, Raghu, & Weaver, 1992). Schweisfurth (2002, p.76) refers to teachers’ response as “reflective mediation” since a full-scale compliance is never expected.

To conceptualise teachers’ responses to changes, Priestley, Biesta, and Robinson (2013) propose an ecological approach to teacher agency. Instead of being a quality of actors themselves, they view teacher agency as an emergent phenomenon achieved through a unique interplay of individual capacity with the social, and material conditions. Priestley (2015) argues there has been an over-emphasis on teacher capacity, thus leading to a neglect of the conditions framing their work. He believes this has disabled many high-capacity teachers. The enabling factors of active learning identified by Harber (2017) regarding Ethiopia, Zambia and Zimbabwe also place more emphasis on the surrounding factors than teachers themselves. These include school ethos and management, physical resources, learner interest and capacity, professional development, forces of change, and lastly, support for teachers. Some of these key factors are explored below.

3.5.1 Teacher beliefs

A notable volume of studies has looked into the relationship between teachers’ beliefs and teaching practices in seeking change. While an earlier review shows that beliefs and actual practices are incongruent (Kagan, 1992), their inconsistency and complexity have also been reported (Raymond, 1997; Wosnitza, Labitzke, Woods-Mcconney, & Karabenick, 2015). Most notably for the current study, a dissonance between teachers’ espoused, and enacted LCP has been observed (Polly & Hannafin, 2011).

The concept belief itself can be a “messy construct” with varied conceptualisations (Pajares, 1992). While acting as mental ideas for individuals to filter new information and guiding timely

decisions, unlike knowledge, beliefs do not require any epistemic warrant or truth condition (Borg, 2001; Kuzborska, 2011; Leinhardt, 1990; Richardson, 2003). Beliefs can be “knowledge-in-use” drawn upon by teachers to inform their contextualised professional judgement (Hagger & McIntyre, 2006, p.34). Beliefs are often formed informally and unconsciously in that professionals are shown to possess uncodified cultural and personal knowledge (Eraut, 2004). There are similar terms that underscore the tacit, implicit and intuitive nature of teacher beliefs, including: “teacher cognition” (Borg, 2003); “folk psychology” (Strauss, 2001); “folk pedagogy” (Bruner, 1996); teacher practical knowledge (Duffee & Aikenhead, 1992); and “craft knowledge” (Cooper & McIntyre, 1996). These beliefs have sustained endurance and are beyond immediate influence, interpretation or prediction (Kagan, 1992; Pajares, 1992).

As discussed in Subsection 3.4.1, the pedagogical change towards LCP has inevitably led to the contestation between existing cultural beliefs and new demands. On learning about LCP, while existing beliefs are not necessarily deterministic (Smagorinsky & Barnes, 2014), they can still facilitate or inhibit the use of it. Studies have shown that teachers with constructivist epistemic beliefs were more willing to change, while those viewing knowledge as rigid and transmissive tended to ask factual questions with pre-determined textbook-based answers (Çetin-Dindar, Kırbulut, & Boz, 2014; Lasry, Charles, & Whittaker, 2014; Tarmo, 2016; Wallace & Priestley, 2011). Resistance was found particularly strong when new policy directives were in contrast with existing norms (Elmore, 1995; McLaughlin, 1987; Smit, 2003). Other competing beliefs include: teacher efficacy, attribution of teachers or students' performance, perceptions of self, subject-specific beliefs and the broader cultural consciousness as well as political acumen (Devine, Fahie, & McGillicuddy, 2013; Fives & Buehl, 2016; Pajares, 1992; Windschitl, 2002). Thus, some argue that only focusing on teachers' belief is insufficient to change practices (Chen, 2008; Mihaela & Alina-Oana, 2015). From another perspective, Guskey (2002) found that showing practices that helped students attain desired learning outcomes could help teachers to change beliefs.

That said, Fives and Buehl (2012) call for avoiding a deficit approach to understand teachers' inconsistent beliefs and practices. Reform is recommended to let teachers reflect on these salient beliefs (Fives & Buehl, 2016). Rather than doubting teacher knowledge, the starting point could involve exploring how pedagogical selection is influenced by contextual, psychological, socio-cultural and environmental realities (Devine et al., 2013; Fang, 1996; S.

Johnson, Hodges, & Monk, 2000). Fullan (2007) has suggested considering nine interactive factors grouped into three key areas for educational changes, namely: characteristics of change, local characteristics and external factors. In the subsections below, the key environmental factors that were found to be influential in teachers' practice are discussed.

3.5.2 Top-down models of change

Studies have underscored the difficulties in implementation when teachers are not consulted in a top-down model of change. Goodson (2000) refers to this situation as an "implementationist myopia" (p.xv), when a social engineering or technicist view assumes changes to be unproblematic. Among the six forces identified by Sergiovanni (2005) on a continuum from top-down to bottom-up, bureaucratic force through strategies like direct supervision and standardised work processes are believed to result in superficial change. For deep changes, Sergiovanni (2005) argues that professional, cultural, and democratic forces are vital to support transformation from within the system.

However, in various contexts often the reform agenda is found to be based on development goals, rather than what is feasible and realistic under contextual realities (Altinyelken, 2010; Hargreaves, 2010). Studies have found that those proposing changes have often taken limited consideration of systemic issues, like classroom realities, administrative workload for teachers, and teachers' prior experiences (Bett, 2016; Hardman, Ackers, Abrishamian, & O'Sullivan, 2011; Wedell & Grassick, 2018). When the pedagogical innovation is planned in separation from the curriculum and assessment, teachers are left to respond to the misalignment between these components (Hayward, Higgins, Livingston, & Wyse, 2016).

In various African contexts, public and teacher involvement in policy decisions is uncommon. In a USAID-commissioned report on Benin, Ethiopia, Guinea, Malawi and Uganda, the power of decision-making and policy formulation was found to be mainly with international funding agencies and top government officials (Moulton, Mundy, Welmond, & Williams, 2001). The exclusion of teachers from curriculum decision-making processes was subsequently reported in Malawi (Mkandawire, Maulidi, Sitima, & Luo, 2018); Zimbabwe (Sibanda & Blignaut, 2020); and Namibia (O'Sullivan, 2004). Teachers' voices were found largely unheard and unutilised, with their simply becoming the "recipients" and implementors (Carl, 2005; Molapo & Pillay, 2018). Thus, Zeichner and Ndimand (2008) argue, problematically, teachers are largely de-professionalised and merely positioned as technicians who implement LCP as prescribed. This was similarly confirmed by other studies, in which it was noted, teachers are

often blamed for being the obstacle or impediments to official goals being met (Akalu, 2016; Goodson, 2000; Howell & Sayed, 2018; Sayed & Badroodien, 2018). Imants and Van der Wal (2020) problematise seeing teachers merely as factors of intervention. Similarly critiqued by Tikly (2019), the top-down and authoritarian approaches to governance take away the ownership of practitioners in the process of change. Most of these authors call for empowering teachers as agents of transformative and counter-hegemonic change.

The exclusion of teacher voices is believed to be among the reasons for the limited success of the elite-driven outcome-based curriculum reform in South Africa (Jansen, 1998). Jansen (1998) points out that, despite the commitment to equity in the post-apartheid era, the vast majority, with the exception being a few white teachers, do not have adequate access to information on outcome-based education (OBE). Most teachers are reported as being inadequately supported and hence, find the reform language complex, confusing and contradictory. In Jansen's (1998) words:

There is not a process, systematic and on-going, in which teachers are allowed to conceptualise and make sense of OBE as curriculum policy. In a cruel twist of history, teachers continue to be defined as 'implementers' and even in this marginal role, official support is uneven, fragmented and, for many teachers, simply non-existent. (p.327)

Similar situations were found in South Africa's Curriculum 2005 (Rogan & Grayson, 2003) and the Revised National Curriculum (Bantwini, 2010), where it emerged that these reforms had a demoralising deficit effect and that they were unable to build on the strengths of the existing educational system.

3.5.3 Teacher training

Another area of concern is about the pre- and in-service training which support teachers' adaptation to LCP. Teachers' pedagogical choices have been found to be influenced by the practice they experience from teacher trainers (Ginsburg, 2010; Rinke, Mawhinney, & Park, 2014). This process was termed "apprenticeship of observation" by Lortie (1975), during which student teachers develop resilient assumptions or "lay theories" on teacher identity and hallmarks of "good teaching" (Sugrue, 1997). Pre-service teachers who have never or minimally experienced constructivist learning were found to identify with the "traditional" or authoritative teaching mode, and were rather resistant to change (Klein, 2001; Schwille & Dembélé, 2007). For instance, only surface learning was found among student teachers in

Ethiopia, who mostly experienced traditional teacher-centred or behaviourist-oriented approaches (Dejene, Bishaw, & Dagnew, 2018). Trainers are thus recommended to situate constructivist or interactive strategies in practice that encourage teacher trainees reflect on the phases of elicitation, confrontation, exploration and application (Fung, 2000; Tattu, 1998). Apart from explaining theoretical knowledge, training is recommended to also target making explicit the unconscious beliefs for critical reflection (Ilic & Bojovic, 2016; Larrivee, 2000).

However, despite promoting LCP, some teacher educators have been observed having enacted LCP only to a limited extent. Teacher-directed instruction remains dominant in training, as reported in various contexts, while “best” practices, such as group work is merely prescribed for apprentices to follow (Akyeampong, 2017; Kunje, 2002; Lunenberg, Korthagen, & Swennen, 2007; Mtika & Gates, 2010; Rop, Osman, & Kirui, 2013). Research has also revealed that student teachers are rarely given opportunities to explore, question, or reflect on the principles backing up LCP, including why it is considered as being better than other approaches. Using observation from South Africa and Namibia, some have argued that teachers have to be transformed from technicians to reflective practitioners to enable LCP reform to be effective (Kretchmar, Nyambe, Robinson, Sadeck, & Zeichner, 2011).

Furthermore, in contexts with limited capacity, there is commonly a minimal follow-up with teachers or mentoring by teacher educators (Sugrue & Fentiman, 2011). Under the reform pressure to scale up pedagogical innovation, the cascade model for CPD is frequently used. Despite having the advantage of cost-effectiveness in reaching the most by training a few (Leu, 2004), the layers of information transfer have led to worrying dilution of the concepts and misinterpretation at times (Dichaba & Mokhele, 2012).

3.5.4 The instructional environment

Another key area of concern is the material context. Research has highlighted the connection between resources and the use of LCP in Tanzania (Vavrus & Bartlett, 2012), Mauritius (Di Biase, 2015) and India (Singal et al., 2018). It was found that, habitual pedagogy is embodied in the local epistemological beliefs and also material conditions. These are thus not merely variables to be considered for change. Vavrus and Bartlett (2012) argue that it is inappropriate to use LCP conceptualised in the west as a gold standard for other contexts that have different resource capacity.

In a study on five francophone African countries, class size was found to have inversely impacted upon student learning outcomes (Michaelowa, 2001). Among the reasons given was that in crowded classrooms, with 50 to 150 students, teachers had difficulties in attending to individual needs, providing supervision and feedback, facilitating group discussions, and stimulating less motivated learners (Chiphiko & Shawa, 2014; Lall, 2010). In South Africa, teachers noted the difficulties in not only keeping students busy, but also, being involved in learning activities meaningfully in the limited time (Juta & van Wyk, 2020). Classroom management has also been raised as a concern in large class sizes, where interactive methods have resulted in noise levels being described as “chaotic” (Marais, 2016).

The shortage of pedagogical materials has often led to teachers remaining as the source of knowledge. In Ghana, with limited printed materials, students were found to be relying on teachers to transmit and copy the required information using substantial amounts of lesson time (Ampiah, 2008). A dissonance has been found between what learners are asked to do autonomously and can manage to do with the available resources (Smith, Kuchah, & Lamb, 2018). Due to time-space and resource constraints, rural and township schools in South Africa were found even less likely to use LCP than their urban counterparts (Warnich & Meyer, 2013). However, providing sufficient resources themselves does not guarantee changes to LCP. For instance, textbooks were seen becoming the authoritative source for teacher to settle different views (Lubben et al., 2003; Read, 2015). In contrast, even in “difficult circumstances”, Kuchah and Smith (2011) have observed that the pedagogy of autonomy is still enacted with teachers’ enthusiasm, willingness and improvisation. Teachers’ beliefs, skills and experience remain vital for a meaningful integration of pedagogical resources into teaching and learning (Light, 2009; Mou, 2016).

The assessment structure in place is another key factor that can be in tension with LCP tenets. In some Asian contexts, the examination-oriented culture with high stakes assessments is commonly found to cause backwash effects on the purpose of education (Kirkpatrick & Zang, 2011; Luk, Lin, Choi, & Wong, 2009; Wolf & Bokhorst-Heng, 2008). In China, You (2018) observed the tension between the “quality-oriented” discourse of LCP and the “exam-determined” reality underpinned by Confucian culture. The author argues that this has led to the continuation of content-based knowledge, high teacher authority, norm-referenced teaching and score-based selective exams, which are in contradiction with most visions within LCP. Regarding early-childhood education, some studies found that Chinese teachers conceptualised learning as distinct from play-based pedagogy, while a strong demand also came from parents

to enhance academic achievement of children for their readiness for primary school (Fung & Cheng, 2012; Wu, 2014). Also in Confucian contexts, when seeking to help students perform well in university entrance examinations, teachers have often been found reluctant to use LCP (Halstead & Zhu, 2009; Tang & Adamson, 2014). Two such cases in Hong Kong (Yeung, 2009) and Taiwan (Huang & Asghar, 2018) revealed that teachers cherish efficiency and prefer not to “waste time” on free exploration in their classrooms.

This is similar to various African countries, where competitive examinations serve screening purpose for school leavers (Sayed & Kanjee, 2013). In Ghana, an unhealthy competition was found with a lack of teamwork culture and appreciation for peer contribution, where students mocked others for providing the wrong answers (Ampadu & Danso, 2018). The authors also found that students preferred to copy teachers’ answers. Whilst a comprehensive review indicates that formative assessments are becoming more prevalent across African countries, it also suggests more training is needed to support teachers in incorporating them into their instructional strategies (Perry, 2013).

3.5.5 Learners factors

Lastly, students are also influential in teachers’ use of LCP. Studies have found that teachers and students share very similar conceptualisations of effective teaching and learning, which has attained habitual status (Cooper & McIntyre, 1993, 1994, 1996). A sudden rupture of these established relations could result in students’ resistance or demotivation (Seidel & Tanner, 2013). In higher education, a shift towards LCP resulted in lecturers receiving student complaints about uncooperative members, and many were found to be unmotivated beyond striving to fulfil grades (Felder & Brent, 1996). In Botswana, “teacher dominance” was suggested as being the result of students’ refusal to engage in participation, rather than the prevailing view of this being down to social control (Tabulawa, 2004).

Some researchers also doubt whether the constructivist assumption on intrinsic motivation is applicable to students in classroom. A study in Turkey found that students’ motivation to learn science decreased in a constructivist learning environment (Cetin-dindar, 2016). Genovese (2003) argues the assumed intrinsic motivation is only applicable to biologically primary abilities that naturally unfold during child development. He believes the nature and content of formal schooling require extrinsic motivation and explicit instruction.

In addition, students' capacity to engage with learning is also restricted by the language policy. The post-colonial continuity with ex-colonial languages serving as MOI has been critiqued as an "inheritance situation", with both social injustice and learning concerns being raised (Bambose, 1991). Despite often being justified by the instrumentality associated with international languages (Ricento, 2010), using English as MOI itself does not guarantee students will acquire the desired proficiency. In the Gambia, owing to insufficient support for students, the English-only policy was found leading to a low level of comprehension and high rate of illiteracy (Igboanusi, 2014).

A major pedagogical concern is, thus, on the lingering situation of both teachers and students remaining unfamiliar with the MOI (Batibo, 2005). In a regional comparative study covering Kenya, Uganda and Tanzania, only about 16% passed the English test (Uwezo, 2012, p.11). In Malawi, 99.4% of grade 6 students did not reach the desirable reading level in English (Milner, Chimombo, Banda, & Mchikoma, 2001). This is believed to be among the major reasons for African classrooms valuing teacher-led instruction (Clegg & Afitska, 2011; McCoy, 2017). Teachers also treasure it as "safetalk", where both they and students, who struggle with the dominant MOI, preserve their dignity by affording few opportunities for displays of academic incompetence at the expense of no or limited learning (Hornberger & Chick, 2001). Moreover, training on teaching methods has often taken learners' proficiency in MOI for granted (Mthiyane, 2016; Probyn, 2006), and hence, how to ensure effective teaching and learning for learners unfamiliar with the MOI has received little scholarly attention (Clegg & Simpson, 2016; Milligan & Tikly, 2016).

Building on these complex issues encountered in both the conceptualisation and implementation of LCP, with a focus on the Rwandan context, the emergent research questions will be presented at the beginning of next chapter. As LCP has been found to be loosely associated with nebulous theoretical perspectives and socio-political desire, it is important, first, to explore the perceptions of local actors. This will support the exploration of how LCP ideals could be implemented in Rwandan classrooms, thereby delivery the learning outcomes originally promised.

CHAPTER 4 METHODOLOGY

In the previous chapter, the emergence of "Learner-centered" Pedagogy (LCP) as a globally popular discourse informed by multiple rationale was discussed, where its implementation was

found to be dependent on teachers and contextual factors. Focusing on the Rwandan context, the emerging research questions are as follows:

RQ1. What are the different understandings of LCP reform efforts among stakeholders in the Rwandan education system?

RQ2. How do teachers at lower secondary level translate these understandings into implementation in Rwandan classrooms?

RQ3. What are the enablers for and challenges in using LCP as promoted in Government of Rwanda's reform efforts?

In this chapter, the methodological approaches chosen to address these research questions are explained and justified. I start with discussion on philosophical paradigm of constructivism, which underpins my research design. Next, I explain the choices of research methods that are in line with constructivist assumptions. Then, the research design is discussed, followed by ethical reflections in cross-cultural research, and how the data analysis was undertaken.

4.1 Constructivism as the philosophical approach

Whilst LCP has been shown to have diverse understanding and practice, I was interested in a bottom-up conceptualisation of it among key Rwandan actors. A qualitative approach was deemed more appropriate, as it helped to engage with human perceptions in a real-life setting. The research paradigm of constructivism¹³ helped to guide my research.

Informed by the *verstehen*¹⁴ principle and interpretivism (Schwandt, 2000), constructivists value a relativist ontology, which allows for multiple but equally valid realities for the same situation (Cohen, Manion, & Morrison, 2011; Guba & Lincoln, 1989). In this regard, each individual can be viewed as agents who construct their own interpretations of the reform policies. The multiple views can inform a realistic picture of the complexity and contradiction in the implementation process. The recognition of plurality is also promoted in various critical research traditions (Bentz & Shapiro, 1998; Kincheloe & McLaren, 2008), particularly scholarly works on Southern and post-colonial perspectives, which critique the epistemic

¹³ “Constructivism” here is a more generic term for different branches of constructivism and constructionism. They place varying emphasis on individually generated and collectively shared knowledge (Lee, 2012), with constructionism conventionally focusing more on the latter (Andrews, 2012; Young & Collin, 2004).

¹⁴ Verstehen is the German word referring to the participative understanding from the first person's point of view in the inquiry of social realities (Moriceau, 2012).

injustice in knowledge production (Connell, 2007; Santos, 2014; Takayama, Sriprakash, & Connell, 2017). Such caution supported my inductive approach, rather than using any pre-defined standard to conceptualise LCP in Rwanda. This was deemed particularly appropriate for investigating teaching and learning issues sensitive to contextual detail.

Constructivists uphold a “transactional and subjectivist” epistemology, which supports the co-construction of knowledge (Guba & Lincoln, 1994, p.111). This was important for informing how the meaning and implementation of LCP for the participants were known. Constructivists believe that meaning-making is inseparable from the socio-cultural context one is situated in (Creswell, 2013). Thus, there is a preference for an *emic* perspective (Morris, Leung, Ames, & Lickel, 1999; Payne & Payne, 2011), which values insiders’ individual interpretations of their lived experience in naturalistic, in-depth, holistic, and non-generalisable ways (Fairbrother, 2016; Mertens, 2015; Shkedi, 2005). The implication was that LCP and its surrounding issues were not pre-determined from my perspective. Rather, the understanding must be grounded in participants’ socio-cultural setting.

Under these ontological and epistemological assumptions, the constructivist methodology is “hermeneutical and dialectical”, which indicates interactions *between* and *among* researchers and respondents (Guba & Lincoln, 1994, p.111). The methods would allow for intersubjective co-construction of knowledge (Creswell, 2013; Sultan, 2019) This has further implications in relation to the call for decolonising research methodologies. Emerging approaches have problematised the power imbalance between the researchers and participants. They have been endeavouring to make research process relational, respectful and non-objectifying through sharing, dialogue, reciprocity and participation (Chilisa, 2012a; L. Smith, 2012; Sonn & Green, 2006; Tuck & Yang, 2012; Weston & Imas, 2018). Collaborative co-generative inquiry has the aim of building knowledge *with* instead of *on* participants, and some empower participants as “co-researchers” (Bergold & Thomas, 2012; Chilisa, Major, & Khudu-Petersen, 2017; Probst, 2016), including the use of video-stimulated reflections with teachers to avoid the researcher’s gaze (Posthuma, 2012; Tripp & Rich, 2012). My approaches to supporting knowledge co-construction are elaborated upon further below.

4.2 Qualitative exploratory case study

Underpinned by the constructivist paradigm, a case study approach was chosen. Yin (2014) suggests that case study is a robust approach to study social phenomena when the research has: how and why questions; little control over the events; and unclear boundaries between the

phenomenon and context. The case study also has the strength of offering in-depth, holistic understanding of actors' perceptions and decision-making in a real-life context (Streb, 2012; Zainal, 2007), with the support of multiple sources and flexibility in the methods (Creswell, 2013; Scholz & Tietje, 2002). It was deemed suitable as I sought to engage with key stakeholders to understand their perceptions and action in a naturalistic way.

This study of LCP was designed as an exploratory study, rather than an evaluation. Hamann and Vandeyar (2018) critique the input-output assumption on policy implementation, in which focusing on whether the policy "worked" could risk overlooking what the policy *was* as implemented. With the same consideration, I deemed the exploratory nature as being most appropriate. Following Stake (1995, p.445), it was an intrinsic case that focused on within-case particularities and not generalised to represent typicality in Rwanda.

I was further inspired by the multi-level design in comparative education, with the aim of providing a balanced understanding of the phenomenon of interest with breadth and depth. Regarding which, Bray and Thomas's (1995) influential three-dimensional model encourages comparative approaches using the axes of geographic/locational, demographic, and the aspects of education and society. Later, the "spatial turn" in social sciences further attended to levels transcending boundaries, including networks, flows, and connections instead of a fixed location, such as a school (Larsen & Beech, 2014; Robertson, 2009).

Policy implementation, likewise, has been studied as a sociocultural practice under the anthropological lens (Bartlett & Vavrus, 2014; Levinson et al., 2009; Levinson, Winstead, & Sutton, 2020; Vavrus & Bartlett, 2006). This approach conceptualises policy and practice as interconnected, and not simply being about implementers, such as teachers at the school level applying the static policy fixed by the "authorised" power. Instead, policy implementation is viewed as "ecological" (Woo, 2016). It involves actors with varying degree of formal authority in a web of interconnected social activity as they:

- (1) define what is problematic in education;
- (2) shape interpretations and means of how problems should be resolved; and
- (3) determine to what vision of the future change efforts should be directed

(Hamann & Rosen, 2011, p.465)

To account for such complex interplay, case study research increasingly involved adopting multi-sited and multi-scalar designs with units of analysis within- and across-levels. Bartlett and Vavrus (2014) used a vertical case study design with the “horizontal” (multi-site), “vertical” (multi-scale) and “transversal” (processual) nexuses to explore LCP in Tanzania. They demonstrated the complex assemblage of actors, who were spatially non-contiguous, and yet connected by historical contingencies.

Similar to this framework, a vertical comparison was used in my research design. It first supported Alexander's (2001) call for comparative pedagogy to explore how stakeholders “relate to each other and inform the discourse of pedagogy and the act of teaching” (p.513). Rwandan actors from three identified levels were included, namely government officials, teacher trainers and teachers who had routine engagement with each other.

Table 4.1

Key stakeholders and their roles

Stakeholders	Known roles in the LCP reform
National government officials	<ul style="list-style-type: none"> • Curriculum development • Develop and distribute pedagogical resources • Manage examination and assessment • Monitor and evaluate LCP
Teacher trainers	<ul style="list-style-type: none"> • Teach and/or serve as role models for pre- and in-service teachers to learn about LCP • Supervise pre-service teachers in practicum
Teachers	<ul style="list-style-type: none"> • Key implementors of LCP in classrooms

As shown in Vavrus and Bartlett's (2012) study, teachers, local evaluators and international researchers had competing views on teaching practices. The simultaneous attention to the comparison of both horizontal and vertical levels was useful for illustrating the contextual dynamics that LCP was situated in. This decision was also to address the epistemological and ethical concern of being an “outsider”. I felt it imperative to consult experienced local actors

to offer a more balanced understanding of LCP. Morse (2001) supported the use of “shadowed data” for this purpose when participants described the characteristics of other groups.

4.3 Positionality in the field

As an “outsider”, I was highly cautious of the constructivist axiology, which holds that constructed realities are value-laden. As researchers are also research instruments in qualitative research, multiple authors have emphasised the integral process of reflexivity. This pertains to acknowledging and reflecting on how researchers’ positionality, personal experience, worldviews, values, and attributes all influence research decisions, interpretations as well as the analysis (Bourke, 2014; Foster, Gomm, & Hammersley, 1996; Hsiung, 2008; Subedi, 2009).

In African contexts, many have raised concerns over research practices becoming extractive and exploitative when foreign researchers come and go. This is seen as a perpetuation of the coloniser/colonised relationship, where privileged elites from western institutions remain as “experts” (Chilisa, 2013). This ethical issue in knowledge production was critiqued by Lancet editors as being a “parachute researcher”, who “drops into a country, makes use of the local infrastructure, personnel, and patients, and then goes home and writes an academic paper for a prestigious journal” (The Lancet Global Health, 2018, p.593).

Specifically in Rwanda, the unbalanced representation was recognised by Fisher (2015) and Beloff (2016), being later reiterated in a British Academy post entitled “Bolstering Rwandan voices in writing about Rwanda” (Ndahinda, Palmer, Clark, Shenge, & Mosley, 2018). Rutazibwa (2014) highlighted the power injustice in the way locals were involved:

Rwanda is silenced, in the sense that the experts are invariably of Western origin...When Rwandan sources are included—usually as informants rather than authors—they tend to be either cast as victims, corroborating the experts' analysis, or as partisans, too closely linked to the current regime to be trusted for objective information. (p.292)

Other critiques include the deficit discourse noted in the field of international development (Aikman et al., 2016), and the single-sided stories dominated by the privileged, as challenged by various African scholars (Adebanwi, 2016; Houmtondji, 1995). I would not claim that this research could fully represent the local voices. Rather, I endeavoured to uphold epistemic humility in recognising and reflecting on different epistemic structures (Walker & Martinez-

Vargas, 2020). Spending significant amount of time in the community was, thus, the pre-requisite for careful reflection.

My “outsider” identity clearly influenced the research process. It was symbolised by my physical attributes (Bridges, 2001; Smyth, 2005), being regularly called “mzungu” by children on the street, which is a Swahili term denoting European. It was extended to carry derogatory connotations in association with the perceived differentials in socio-economic status, power, behaviours and privilege among foreigners. The ‘white privilege’ in fieldwork was previously reported in Botswana, with westerners being associated with luxury jobs, as safari tourists, and having a higher ability to shape the state's involvement (Larocco, Shinn, & Madise, 2019). Similarly in Tanzania, it emerged that foreign researchers could receive differential treatment by the local authorities (Naveed, Sakata, Kefallinou, Young, & Anand, 2017). The power dynamics were further influenced by the age gap. At the age of 24 to 25, I was much younger than all the participants, and yet, I had had the privilege of studying abroad at a traditionally elite western university. Rwandan PhD holders were expected to be in mid-40s. The surprise was well-reflected in one teacher’s remark “PhD? But you are just like our children!”. This led to many participants lamenting the lack of financial means and access to opportunities, which could have influenced the type of information they shared with me.

An important influence on the data was observed given I was a young researcher of Hong Kong origin – an identity partially associated with, but also distinct from “Chinese”. Rwandans in and beyond the research often shared surprised about how “different” I was based on the language capacity and interactions with them. They mentioned the Chinese migrant workers often had limited integration into local communities (Mohan & Tan-Mullins, 2009), which had led to anti-Chinese sentiments in various Southern African countries (Sibiri, 2021). On the other hand, many also praised “you Asian countries” and “you Chinese people” for their success in economic development. “They”, was commonly referring to NGO workers, expatriates or tourists from western countries. While praising their funding or contribution to tourism, many participants had mixed feeling towards some initiatives. These encounters showed that my perceived identity had unavoidably influenced the information shared. Furthermore, my beliefs and personal experiences in education had subconsciously filtered how information was taken in.

To enable respectful research to take place, I strove to resituate myself in the field. With reference to Herr and Anderson's (2005, p.31) insider/outsider continuum, I gradually

repositioned myself as an outsider in collaboration with insiders in this research. First, I stayed with a Rwandan family in Kinyinya, Kigali, who ran an NGO committed to post-genocide recovery. My nine months of fieldwork was a consideration similar to that of Keikelame and Swartz (2019), who underscored the importance of pacing the research slowly in order to establish one's respectful commitment, redress the power imbalance, build trust, and develop cultural competence. The trust-building process was further facilitated by my affiliation to UR-CE, where I became a student of a much revered Rwandan professor (see Sections 4.5 and 4.7). These connections allowed me to learn about contextual realities as lived experiences and to share everyday interactions with participants regularly, outside the interviewer-interviewee relationship. The most notable ones were on public transport. As I often travelled with participants and even relied on their help with negotiation, these shared times were not simply mundane. They crucially led to more mutual understanding of my perspective and identity, as well as enabling them to question me about any areas of interest.

While the values and potential bias could hardly be eliminated, especially in the selection and representation of voices, living in the field did help to support careful reflection on my assumptions. Throughout the data collection, analysis and presentation of findings, I regularly questioned myself by asking: “what are my assumptions here and why? What might I be missing?”.

4.4 Pilot study

The data collection for this research was through nine months of fieldwork from January to September 2019. I was the sole researcher. In preparation, a pilot study was conducted in June 2018 with four primary aims, namely to: (1) seek approval from the relevant Rwandan authorities for a research permit; (2) establish connections with participants for the main study; (3) familiarise myself with the cultural context; and (4) to test and revise the research instruments. During the piloting phase, I visited six schools, two per category of: private, 12-Year Basic Education (12YBE), and “schools of excellence”. I then chose to only include “schools of excellence” in the main study (see Subsection 4.5.3).

The pilot experience was helpful for modifying my research instruments. I started with semi-structured protocols for both interviews and observations, which were both revised with more focused and relevant themes. For instance, many teachers shared how their teaching had to ensure students perform well in the national examination. One said “education is the foundation of everything. You cannot do a course, if you don't excel in a particular subject”. I then added

questions on the examination structure. In addition, I had originally intended to compare LCP with “good” teaching practices, as defined by participants. However, most participants did not see any differences between them. To encourage more reflections on LCP, I changed by asking for comparison of it with the previous teaching approach, which successfully led to more critical reflections on the practice.

Moreover, questions about personal opinions or reflection were rarely able to gather rich responses, such as “in your view, is there any limitation with LCP?”. Only short answers of “no” or blame assigned to resources or students were given, which can be attributed to the limited rapport-building during the piloting phase. Yet, more importantly, I also noted critique was routinely avoided when it was seen as potentially damaging social relations between colleagues. Consequently, I switched to focusing on the “best” lesson and ideal settings for LCP in order to identify factors that influenced its implementation. Still, challenges persisted, which are highlighted in Subsection 4.6.1.

4.5 Sampling strategies

As a non-generalisable study, all participants were selected using non-probability purposive sampling. This was to ensure that those taking part possessed relevant knowledge and experience for giving information-rich responses (May, 2011). Moreover, their voluntary willingness to participate was essential for ethical reasons. A key limitation regarding the sample was the gender imbalance among participants, who were predominantly male. The recruited stakeholders and the respective sampling criteria are listed in Table 4.2. All communication with the participants was through their preferred means, most commonly being phone calls or text messages.

Table 4.2

Overview of participants and recruitment criteria

Level	Participants	Sampling criteria
National government	10 (2 female, 8 male) government officials at MINEDUC or REB	<ul style="list-style-type: none"> • Involved in the curriculum implementation, teacher training or evaluation of LCP
Teacher Training	16 (1 female, 15 male) teacher trainers at UR-CE	<ul style="list-style-type: none"> • At least 5 years of experience as a teacher trainer • Trains pre- and in-service teachers at lower secondary level in response to the Government of Rwanda's reform of CBC and LCP • Not teaching at secondary school
School	16 (2 female, 14 male) teachers from 4 schools; 2 Deans of Studies	<ul style="list-style-type: none"> • Full-time teachers with at least 5 years of teaching experience • One teacher per school from these subjects: English, Mathematics, History and Science • Not involved in other interventions or research projects from January to June 2019 (except teacher training)

The processes of accessing participants and determining the sample size were not straightforward. My affiliation to UR-CE, which began as an ethical requirement, had been the most helpful in this regard. While local authorities tend to be understood as gatekeepers, who control access to research sites (Keesling, 2011), my case was also about their facilitation of my access. As my local supervisor became an integral part of the research process, this affirmed the call to reconsider gatekeepers' role not as distant and mechanic, but dynamic and relational (Crowhurst & Kennedy-Macfoy, 2013). The ethical concerns that arose are discussed in Subsection 4.7.2. Now, I turn to explain how the potential participants were identified.

4.5.1 Government officials

10 officials were interviewed in total. With the limited information available online, key ones involved in the curriculum implementation were identified by my local supervisor based on his knowledge. I also identified others from information shared by school leaders and teacher trainers during interviews. I contacted 20 key officials by visiting their offices and using phone calls. While they all agreed to participate in principle, most were busy with various national campaigns about school inspection and teacher training. They requested me to call them again at later dates, and it became a repeated process that lasted for months. When an interview was successfully conducted, the snowballing strategy was used to invite them to propose others who had shared similar experiences, but were not otherwise publicly reachable (Bryman, 2013, p.415).

4.5.2 Teacher trainers

Sixteen teacher trainers were interviewed for this study. I invited those who had extensive experience in supervising pre- and in-service teachers for LCP at the national level¹⁵. Four teacher trainers from UR-CE were identified first through opportunity sampling, with whom I became acquainted in 2017, during my MSc research in Rwanda. Then, a similar snowballing strategy was used. I was cautious of its key limitation in that important informants beyond a certain social network can be left out (Atkinson & Flint, 2001). Such convenience sampling may also yield information with poor utility or quality (Biernacki & Waldorf, 1981; Patton, 1990, p.181). While all participating trainers were from UR-CE, as of 2021, it was still the only public institution training a high number of secondary school teachers. The professional development programmes co-organised by the government and international partners, like AIMS, VVOB and Building Learning Foundations (BLF), also largely rely on UR-CE trainers for co-development and delivery. Hence, I focused on diversifying the connections within UR-CE. In addition to inviting some trainers who I visited during various training sessions, I sought recommendations from the principal and the deans of different departments to identify experienced trainers who specialised in curriculum and pedagogy. Snowballing was used with all of them to minimise the risk of leaving out key informants.

The sample size was determined by the need for the case study to gather reasonably balanced and rich information. Mason (2010) observed that a high proportion of studies with interviews

¹⁵ With the cascade model of training, some experienced teachers and “school-based mentors” at secondary schools were invited to train other teachers.

utilised multiples of ten, which did not seem to follow any theory-driven principles. Data saturation was a key criterion in my case, which was generally indicated by replication or redundancy of data. However, it is a nebulous concept and the process often lacks systematisation (Bowen, 2008). Sample size depends on a wide range of factors, such as the scope of study, nature of topic, quality of data, cohesiveness of the sample, and whether theoretical sampling is used (Morse, 1995, 2000). Some have included concrete numbers as a reference. A widely cited study by Guest, Bunce, and Johnson (2006) found that it was between six and 50 depending on the type of study and their case showed that saturation occurred within the first 12 interviews. In response to this study, Hagaman and Wutich (2017) confirmed that 16 or fewer interviews were enough for relatively homogeneous groups, while heterogeneous groups could require 20 to 40 interviews to reach data saturation for cross-cultural meta-themes. In my experience, the preliminary coding had not identified new themes after the 10th interview. However, I continued to arrange for more interviews. I found that my rapport-building, interview skills, and contextual knowledge had gradually improved during the fieldwork. Hence, despite the themes being rather repetitive, the last few interviews were among the richest, with the most in-depth details.

4.5.3 Schools

Four schools were selected in total. Based on the pilot experience, I desired to work with “schools of excellence” to explore the “best” scenario of LCP. This is considered as a deviant case sampling for researchers to seek information-rich, “cases they could learn the most” within time and resource constraints (Patton, 1990, p.170). This was not to produce an idealised version of LCP in Rwanda. Rather, “schools of excellence” were still representative of Rwandan realities as they were public (government-aided) schools using the local curriculum. Despite to a different extent, they still faced similar challenges in teaching and learning like other public schools. As a relatively new reform since 2016, I believed it would be more productive to explore the scenario where LCP was possible to a greater extent. This was first and foremost to avoid reinforcing a deficit discourse about educational reform in African contexts. The key rationale was to reflect on instances of LCP, including both strengths and areas of improvements.

As an outsider unable to account for all variables in schools, the “school of excellence” was used as a proxy to operationalise the “best” scenario. Their areas of strengths were identified with the implications for LCP, as shown in Table 4.3, which were all important factors in support of its implementation.

Table 4.3

Some characteristics of the “schools of excellence”

Areas of Strength	Description
Student capacity and motivation	The top performers in the primary leaving examination who got admitted by these schools tended to have stronger family background, preparedness in learning, language proficiency and motivation.
Resources	These schools began as science-based schools chosen by MINEDUC in each district with appropriate infrastructure, equipment, materials and human resources to support the national goals (“Government to introduce schools of excellence,” 2011 Aug 23). In 2012, on a per-student basis, these schools received about four times as much funding from the government as those for basic education (Williams, 2018).
Teacher facilitation and motivation	Teachers were relatively better facilitated by pedagogical resources, food and monetary subsidies from capable parents. Apart from improving motivation, these factors also eased the financial burden for teachers, which compelled them to engage in other income-generating activities.

The choice of Kigali city was based on safety concern, restricted time and financial resources affordable for a doctoral degree. Reference was then taken from a ranking table published after a quality assurance campaign conducted by MINEDUC¹⁶. It measures school “quality” with six indicators namely: dropout; repetition; school leadership and management; teaching and learning process; school hygiene and sanitation; and use of ICT in teaching and learning. I approached the three highest ranked “schools of excellence” in each district in Kigali city (Gasabo, Nyarugenge and Kicukiro).

My attempts to visit schools on my own had little success. Some school leaders were uncertain about the meaning of research, the possible consequences when findings were published, and the potential benefits for the school community. The feedback was reasonable as schools had

¹⁶ The ranking of schools published by MINEDUC is available at http://mineduc.gov.rw/fileadmin/user_upload/Amatangazo/Ranking_of_Primary_and_secondary_schools_in_Rwanda_October_25_compressed.pdf, accessed on 18 Nov 2018

been regularly overwhelmed by official inspection, student teachers in practicum, and activities with various NGOs. Some inspections could lead to immediate school closures and staff being sacked. Some school leaders indicated that with their tight teaching schedule it would be difficult to accommodate another visitor.

My local supervisor believed such responses reflected that school leaders were uncomfortable with my presence. As an experienced researcher himself, he understood that an extensive amount of trust and support from them would be the pre-requisite to support any quality research. Hence, while we were fully aware of the ethical implications on ensuring voluntary participation (see below Subsection 4.7.2), he visited the potential schools together with me and formally introduced me as his student. Notably, since the head teachers at school A and the Dean of Studies (DoS) at school D were his former students, I was warmly welcomed even before any provision of details. We explained clearly how research activities would be conducted with minimal disruption to teachers' routines. A further emphasis was on the nature of interviews and observations, which was for learning from teachers, rather than a form of inspection. It was made clear that school leaders were always free to reject the request or withdraw their participation at later stages. A copy of all research tools was provided to the school leaders upon request. The four schools that granted access, with their locations are as follows.

Table 4.4

Schools with approved access

Schools	School A	School B	School C	School D
District	Kicukiro	Nyarugenge	Gasabo	Kicukiro

At first, three schools were deemed manageable considering the need for prolonged engagement with teachers. The school leaders of school C later raised concerns over the length of the project and had additional requirements that all interactions must take place only in a specific room at a pre-determined time. While I had total respect for the school's decision, these requirements would have taken teachers away from their comfortable environment and off their schedule. These dynamics could have impacted on the quality of data and hence, school D was added in May 2019.

4.5.4 Teachers in the sampled schools

Sixteen teachers were interviewed and observed in total. Considering the possibility of subject-based variation in using LCP, four subjects were targeted namely: English, mathematics, history and chemistry. The chemistry teacher in school B later switched school, while other teachers of the subject were unavailable. Hence, a biology teacher was invited to participate. These subjects were chosen as they also existed in the previous curriculum. This helped teachers to reflect on the established teaching practices before and after LCP was officialised. All teachers were identified by the respective DoS and I approached each teacher individually. The DoSs from school A and D were also interviewed, but the other two were unavailable.

A major limitation in sampling across the levels was that I only recruited participants comfortable with speaking English. However, English, as the official MOI, was compulsory for all teachers and teacher trainers in their teaching routine (see Chapter 2, Subsection 2.3). In line with the rationale to explore the “best” scenario of LCP, this required certain proficiency in the MOI. While acknowledging conversing in participants’ most comfortable language could yield data with higher quality, unfortunately, due to financial constraints, I was unable to hire translators. Another limitation, as aforementioned, was regarding gender imbalance. Among the accessible participants who agreed to participate, only two officials, one teacher trainer and two teachers were female. This was lower than being representative of the female secondary school teaching workforce, which stood at 28.33% in 2019 (MINEDUC, 2019a). The analysis was, therefore, unable to account fully for gender-specific perspectives. An overview of backgrounds of recruited teachers is provided in Appendix B. I now discuss how I worked with participants using a variety of data collection methods.

4.6 Data collection methods

Regarding the research tools, a combination of semi-structured interviews, classroom observations, and fieldnotes was used. The table below provides an overview of the data collection methods.

Table 4.5

Overview of the data collection methods

Participants	Research Questions	Main methods conducted	Supplementary methods
10 Government officials	1, 3	10 semi-structured interviews	Fieldnotes
16 teacher trainers	1, 3	16 semi-structured interviews	
2 DoS	1, 3	2 semi-structured interviews	
16 teachers	1, 2, 3	16 semi-structured pre-, and 16 post-observation interviews	Fieldnotes Lesson plans Drawings of classroom setting
	2	68 double-periods of classroom observations	

The triangulation of methods was the key to improving the quality of data. The comparison of data obtained through different approaches was useful in enriching the details, and highlighting contradictions or different interpretations. The rationale behind each chosen method and the research process are discussed below.

4.6.1 Semi-structured interviews

Aligned with the constructivist methodology of knowledge co-construction, the interview interlocks the researcher and participants in an interactive process of meaning negotiation (Mertens, 2015, p.19). It was an important method to empower human voices by letting participants make their own account (Edwards & Holland, 2013). I was inspired by Kvale and Brinkmann's (2015) heuristic metaphors of the interviewer as "traveller" and "miner". The "miner" believes in an objective reality, while the "traveller" remains reflective, curious and open in conversation with the participants to review the previously taken-for-granted values. My use of semi-structured interviews was a recognition of the "traveller" account. While focusing on points of interest, it avoided the imposition of an inappropriate frame of reference on participants (Bryman, 2016). This increased the free space for discussing the concerns and worldviews of the participants. Probes and prompts were prepared for seeking further elaboration and deeper reasoning (Yeo et al., 2009).

This approach also responded to my post-colonial epistemological commitment to preventing the researcher from monopolising the interview focus and process (Chilisa, 2012a; Corbin & Morse, 2003; Darroch & Giles, 2014; Racine & Petruka, 2011). However, whether participants would be open to share their voices remained a tricky question. Some researchers have had experiences in contexts under authoritarian regimes, where silence was preferred, when making “critical” comments could pose serious risks to one’s safety, career opportunities and personal relationships (Honan, Hamid, Alhamdan, Phommalangsy, & Lingard, 2013; Janenova, 2019; Yusupova, 2019). Gokah (2006) shared his experience about policy officers in Ghana, Uganda, Ethiopia and South Africa avoiding policy issues for fear of political repercussions, government clampdown, and the consequences, of being labelled as anti-government. Vuban and Eta (2019) had similar experiences in Cameroon, where the political environment, red-tapism, officials’ skeptical attitudes towards research, “African time” syndrome, and barriers in the official language all made researchers feel unwelcome.

Likewise, previous research in Rwanda reported various forms of official censorship in different domains (Freedman et al., 2008; Waldorf, 2007; Walker-Kelher, 2006). Beloff (2016) noted that these accounts led to a negative impression towards foreign academics, as many were found criticising Rwanda for the sake of it, rather than sharing the desire to solve existing problems. whilst my topic on teaching practices was not typically classified as sensitive, given LCP was an official policy and all participants were employees at public institutions, they could feel uncomfortable commenting on government policies. I first checked carefully with my supervisors about how to frame interview questions using contextually appropriate terms. For instance, “limitations” were replaced with comparative, less pejorative, terms. I strongly upheld openness to let participants share any themes. This was to avoid the collection of perfunctory responses merely to fulfil interview requests. In addition, the questions were sent to the participants ahead of the interview upon request. Whilst this could have led to social desirability or selective reporting, it was even more important to ensure their participation would not lead to any unintended negative consequences. The issues of using audio-recording are addressed in Subsection 4.6.2, while the critiques of interviews and efforts to improve credibility are covered in Section 4.8.

The pre-observation questions for all participants revolved around their perceptions on LCP based on these key themes.

- The purposes of education
- The rationale of LCP
- The roles of teachers and students in LCP
- The process of change
- The enablers of LCP
- The challenges of LCP

To engage deeper with teachers' perception, Hagger & McIntrye (2006, p.97) recommend that interviewers: ask open questions, seek explanations of why and how teachers do things, relate questions to the specific observed lesson, and focus on what has gone well in the lesson. With reference to these points, I prepared questions to reflect with teachers on their classroom practices. The full set of questions is provided in Appendix C.

To instigate rapport-building before formally collecting data, I included a two-week "lead-in" period before the formal data collection at schools, which helped in familiarising myself with teachers and students (Cotton, Stokes, & Cotton, 2010). Yet, the challenges encountered in the piloting experience persisted, in particular, responses from participants remained rather short. Most participants described LCP similarly using the same set of policy terminology, such as referring to teachers being "facilitators" and that students should be "active" in activities like "group work". The dilemma was that using multiple probes could feel like an interrogation, as participants often looked stumped or hesitated and the description of the concept remained rather abstract, as in this following example:

Box 4.1

Excerpt of interview

Me: For you, what are the roles of teachers?

T10: After the change of CBC the teacher is becoming the facilitator.

Me: Any example of how do you facilitate?

T10: Facilitate? Facilitate, he is there to facilitate, it is like, erm, he is making students to working hard.

At first, the comments on LCP reform were unanimously positive, such as "it is very good" or "I like it". The question asking about challenges in using LCP had only collected relatively

obvious points, such as the lack of resources. Generally, not much elaboration was provided. In line with the literature, my local supervisor also alerted me to the under-reported themes, such as abrupt policy change and teacher welfare. Prior research also noted that in collectivist cultures, harmonisation of views and the respect for hierarchy are key social values (Liamputong, 2015). I then attempted to use hypothetical questions beginning with “imagine the most ideal situation...” or “if you could change one thing...”. These successfully led to fuller descriptive responses. Yet, some teachers refused to comment further by stating they had “no problem with that” or “you can talk to our leaders directly”. Two teachers responded based on their lived realities by mentioning “it is not possible to change”. These responses did alert me to a crucial factor in the top-down model of policy change, whereby it often has little involvement of teachers in decision-making.

As I valued the exploration of intersubjective meanings, the emerging difficulties in probing encouraged me to seek additional aids. Notably, teachers’ lesson plans and drawings were included during the interviews to enrich the conversations. REB had standardised lesson plan formats for all teachers, as shown in Figure 4.1.

Figure 4.1

An example of a lesson plan

Term	Date	Subject	Class	Unit No	Lesson No	Duration	Class size
3	17/09/2019	Maths	31..	9.	11....	80'	45
Type of Special Educational Needs to be catered for in this lesson and number of learners in each category							
Unit title		<i>Probability</i>					
Key Unit Competence		<i>To be able to determine the probability of an event</i>					
Title of the lesson		<i>Probability of an event</i>					
Instructional Objective		<i>By the end of this unit student will be able to determine the probability of an event happening under equally likely assumption</i>					
Plan for this Class (location: in / outside)		<i>In</i>					
Learning Materials		<i>Books, pens, ruler</i>					
References		<i>Mathematics books for Rwandan school.</i>					
Timing for each step		Description of teaching and learning activity			General competences & Cross cutting issues & a short explanation		
Introduction		Teacher activities	Learner activities		<i>Gender education</i>		
10 min		<i>Give activity do activity</i>			<i>critical thinking</i>		
Development of the lesson		<i>Explain that - Estimate probability using data the probability can be calculated - calculate the probability using equally likely outcomes of an event with equally likely outcomes</i>			<i>communication skills</i>		
60 min							
Conclusion		Evaluate	<i>write answers and correct mistakes</i>				
1 min							
Teacher self-evaluation							

The major focus was not on whether the plans were filled in correctly, but rather, the factors teachers considered during the planning process. The lesson plan was found useful in elaborating upon the popular curriculum terminology using specific scenarios or tasks in particular lessons. The blanks on the plan also led to the sharing of difficulties in achieving LCP visions. For instance, when most teachers did not indicate the number of students with special needs, the theme of inclusion was brought into the discussion.

The process of reflecting on the lesson plans also made me aware of local dynamics. When teachers were asked whether any changes were made in-class, all immediately denied such as saying “no, everything was followed!”. Yet, if the premise of LCP was to improve learning practice, pedagogical decisions could have been made in response to spontaneous situations. This issue has been raised by scholars, who highlight how lesson plans and teaching should not always be unalterably scripted, but rather, reflective of the unpredictability, flexibility, and creativity in real-life (Fujii, 2013; John, 2006; Schmidt, 2005). While there was a general consensus among teacher trainers that teachers were not prevented from expanding the lesson plan, some felt that the inspectorial criteria had constrained their planning and practice of LCP (to be discussed in Chapter 7, Section 7.7).

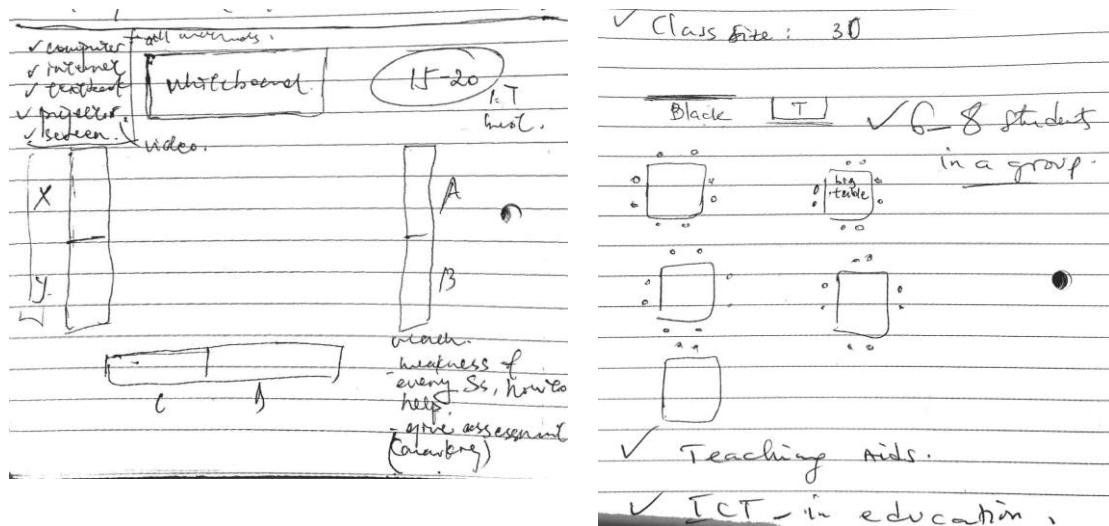
Lastly, to support in-depth discussion about the limitations of LCP, I invited all teachers to draw their ideal LCP settings. Visual stimuli is among the elicitation techniques for making tacit or unarticulated concepts in interviews more accessible. Power (2003) recognises human beings are practitioners of everyday life, whose routine practices are difficult to be called to into consciousness and explained in concrete words. Drawings can help to reflect the symbolic choices of participants as they highlight their meaningful conceptual categories (Barton, 2015). In O’Connell’s (2013) study, the drawing re-presented the world in an accessible way, which did not only allow for elaboration, but also, corroboration and contradiction of other data. Harper’s (2002) use of photo elicitation showed how the researcher and participants engaged in the process of social construction using different perspectives. Visual aids also help in exploring culture-specific meanings. Literat (2013) highlights the inherent affordances of visual images to represent situated realities holistically. She elicited that a drawn dog in the chosen Indian context is a symbol associated with poverty and homelessness, rather than representing a good family life in the western world.

In my case, in support of these authors’ views, the drawing was crucial for making culture-specific concerns transparent. For instance, while environmental factors, such as large class

sizes, were mentioned by nearly all the participants, their exact impact was rarely articulated. In teachers' ideal settings, smaller class sizes would permit the two seating arrangements shown in Figure 4.2.

Figure 4.2

Sample of teachers' drawings of the ideal setting to use LCP



My immediate attention was on the groups represented by the rectangular shapes, which was possibly about student interaction. However, both teachers explained that the grouping was only secondary. Their primary concern was on the space to move around for enforcing discipline and ensuring students were on-task. This led to more discussion about the cherished outcomes in Rwandan education. The use of visual aids was therefore invaluable to reflect on my biases, and emerging concerns that were not shared in the interviews.

4.6.2 Semi-structured classroom observations

After the pre-observation interviews, 68 double periods were observed in total with 16 teachers to visualise their teaching routine. Following the observational approaches developed from ethnographic traditions, my aim was to obtain a holistic understanding of participants' lived experiences and the interactional dynamics in a natural setting (DeWalt & DeWalt, 2002; Kawulich, 2005). This complemented the self-reported information obtained from interviews. In cases of dissonance between teachers' perception of LCP and their practice, exploring the reasons contributing to such a gap could help to account for the complexity in enabling education reform.

Among the forms of observation, the non-participant approach was deemed more appropriate. My chosen role of being a non-participant was thus towards the latter end of Gold's (1958) continuum. Despite being overtly present, I sat either at the back or the side of the classroom to minimise my influence on the lesson (Liu & Maitlis, 2010). However, this was not always possible, as in Rwanda, visitors are typically treated with hospitality and their presence is usually formally acknowledged. After months of routine interactions, teachers still regularly checked whether I could follow the lesson. I was often invited to share with students and provide feedback to the class. The head teachers or DoS might also greet me through the windows when the teachers were still teaching. This treatment was fully appreciated and it would have been extremely impolite to ignore them. Thus, I usually gave brief responses and continued with the observation.

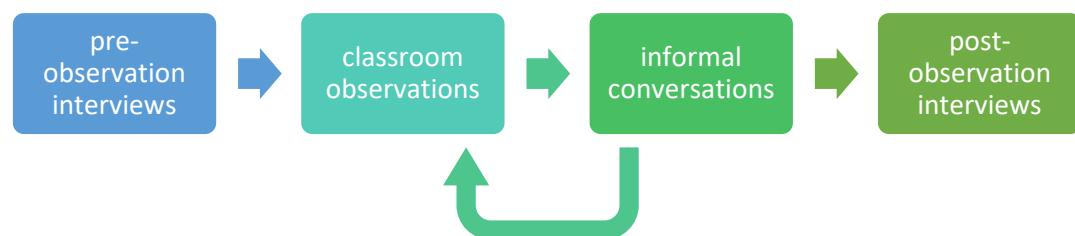
Regarding the observations, earlier research warned against a check-list approach to understand pedagogy, as it is how the meaning of the pedagogical concept is articulated in practice that matters the most (Florian & Black-Hawkins, 2011). Hence, the observations were followed by another interview to allow for teachers' elaboration of their decisions, which was not directly observable. I then developed a semi-structured observation schedule containing several categories (Appendix D). It was designed with reference to the "building blocks of teaching", which covers the dimensions of task, activity, interaction and judgement (Alexander, 2009, p.929). To avoid imposing inappropriate standards, the categories in the observation protocol were not exhaustive. More emerging themes suggested by regular patterns and the comparison of diachronic and synchronic events were captured together with critical incidents (Mertens, 2015; Peshkin, 2001). These refer to specific instances that can be illustrative of a salient aspect of a teacher's strategy or style (Wragg, 1999, p.67-70). That said, I was aware of the danger of misinterpreting the observation when classroom routine could look similar across contexts, when in reality there are different dynamics (Wragg, 1999). These selective Rwandan classrooms were somehow similar to my educational experience in Hong Kong in terms of class size, classroom setup, and the formalistic teacher-student interaction. I thus studiously endeavoured to withholding any judgement.

Each teacher was formally observed for a minimum of four double periods. The 80 minutes for each observation allowed more flexibility for enacting LCP in different formats. The exact schedule of the visit was all determined by the teachers, including when the observation should terminate. Whenever possible, informal conversation took place after each observation to address any immediate points of interest arising from the lesson. I first inquired about critical

incidents. For instance, students were seemingly “unresponsive” in one instance, and it turned out to be food poisoning. Then, the conversation focused on “what went well in this lesson?” and “if you could change one thing in this lesson, what would it be?”. The relatively casual nature of such an exchange and fresh memories from class were helpful for teachers to share more. After four observations, I presented a note to the teachers with a summary of them, including the topic content, and all pedagogical activities observed. They were asked if there was anything else they considered as LCP but had not been observed. Only when they believed the observation was sufficient to represent their range of LCP practice, was a post-observation interview conducted with each teacher individually (Appendix E). The flow of data collection with teachers is shown in Figure 4.3.

Figure 4.3

The process of data collection with teachers



While this arrangement could potentially cause a certain degree of deviation from teachers' normal routine, their freedom was deemed more important. Firstly, as they were already pressurised by regular inspections, any discomfort and disruption to their teaching plans needed to be minimised. This was also the major reason for not using video-recording, but only audio-recording and fieldnotes to assist data analysis. However, the audio was not always audible due to environmental noise and large class sizes with speakers overlapping. Secondly, this was not an evaluative study with pre-set standards for LCP. Instead, the enquiry was about how LCP was used, and most importantly, for what purposes. When a visit was denied, this still illuminated crucial contextual issues. For instance, most teachers indicated the minimal use of LCP given the need for completing the syllabus and helping students to hand-write notes due to the unavailability of textbooks. This led to an in-depth reflection on how learning was influenced by the high-stakes national examination, and also, what was considered as *not* being LCP.

4.6.3 Fieldnotes

Fieldnotes were also taken throughout the fieldwork to provide additional details. This included contextualising geographical contexts, local encounters and process of the interview among, other critical reflections (Phillippi & Lauderdale, 2018). Moreover, for anthropologists, the value of fieldnotes lies in “thick descriptions” (Geertz, 1973). For Geertz (1973), the descriptions are not simply long accounts of events in procedural terms. In recognition of the socially established structure of meaning, “thick description” is an intellectual effort to interpret these structures of signification in a microscopic perspective. For instance, I encountered a puzzling situation when some participants sounded enthusiastic about taking part, but ended up a few hours late to our scheduled meeting. From Geertz's (1973) perspective, it was not about being “late” as such, but rather, what could this action suggest or signify in the specific cultural context and circumstances? The fieldnotes were crucial in assisting later reflection on, and reconstruction of the fragmented pieces of sensory as well as emotional experiences (Mills & Morton, 2013). Most notes became the reference for the weekly discussion with my local supervisor. I will return to this point about “being late” in Subsection 4.7.2 together with other cultural dilemmas. Following Bogdan and Biklen's (2007) suggestion, descriptive and reflective fieldnotes were separately taken, as shown in Table 4.6. This provided a less judgemental and abstract capture of the whole scenario chronologically.

Table 4.6

Examples of fieldnotes taken after an interview

Descriptive	Reflective
T asked a few times “what do you think about my class?”	Is it because he is worried that I would tell the DoS? What might be some non-judgemental but meaningful responses I could share?
T came to the interview with a notebook. At least four pages were full of written notes, and he was almost always looking at them during the interview.	He seemed to be reading out the answers in a points form, saying “factor no.1, factor no.2”. Did he understand my probes? The language proficiency was seemingly influential in using LCP.
He used the vocabulary: facilitator, active, discover, research, learner, putting them in groups.	Interestingly, this vocabulary sounds quite familiar, are these words also used in the curriculum? Teachers seem to know CBC or LCP quite well at least in terms of terminology. But what do they actually mean?
Cross-cutting issues: gender, peace, environmental were commonly mentioned, but he did not respond to my probe for examples.	Many teachers can mention these cross-cutting issues, but I need to use other probes when they struggle to describe examples. In class, where are these? I didn't see them apart from “gender balance”.

This process of taking fieldnotes was found helpful for the later analysis, which was an iterative process that required regularly revisiting of the descriptive data to re-interpret the scenario. I now turn to explaining the ethical issues that needed to be addressed for this study.

4.7 Ethics

Both conventional and context-specific ethical considerations underpinning the whole study were highly prioritised. While ethical requirements were routinely treated as paperwork to be “done”, it was not an event, but rather, a continuous process of reflection, especially given my position as an “outsider” navigating different localities.

4.7.1 Ethical approval

The research had been granted ethical approval by the following authorities. Their guidelines were also followed accordingly.

Table 4.7

Overview of the ethical approval process

	Institutions	Ethical Guidelines
1.	Faculty of Education, University of Cambridge	<ul style="list-style-type: none"> • Faculty of Education: <i>Policy R001 Ethical Guidelines</i>¹⁷ • BERA's (2011) <i>Ethical Guidelines for Educational Research</i>
2.	Rwanda National Council for Science and Technology ¹⁸ (NCST)	Guidelines on the NCST research permit and application form
3.	Authorised location affiliations ¹⁹ : <ul style="list-style-type: none"> • University of Rwanda-Directorate of Research and Innovation • University of Rwanda-College of Education (UR-CE) 	<ul style="list-style-type: none"> • University of Rwanda Research Directorate's (2018) <i>Research Ethical Guidelines</i> • Situated ethical concerns discussed with local supervisor
4.	Selected schools	Research procedures agreed with the respective head teachers and deans of studies

Despite Gebauer (2015) sharing an experience in Rwanda that no participants asked for a research permit, ethical procedures should be strictly observed. To obtain a research permit in Rwanda, researchers must be affiliated to an authorised local authority. UR-CE was considered as the most suitable since it was the only public institute specialising in educational research and teacher training at secondary level. A local supervisor who I met during my MSc studies had agreed to be reappointed to support my research. The affiliation documents, and research permit are included in Appendix F.

¹⁷ The guidelines can be accessed at <https://www.educ.cam.ac.uk/internal/administration/policies/R001-ethics/>

¹⁸ Before 2018, the service was monitored by MINEDUC, and was then transferred to NCST. The protocol of NCST is listed on: <https://ncst.gov.rw/content/application-research-permit>.

¹⁹ A list of institutions authorised for research affiliation in Rwanda was posted by MINEDUC: http://mineduc.gov.rw/fileadmin/user_upload>List_of_Institutions_proposed_for_research_affiliation_purposes_in_Rwanda.pdf

Participants were sent the information sheets at least 24 hours before the interviews (Appendix G). Written consent was obtained before beginning any research-related activities (Appendix H). My topic was unlikely to raise any immediate concerns with psychological safety. However, as a post-genocide context, many historical issues remained sensitive or traumatic in Rwanda and hence, all questions were framed carefully to maximise openness. Participants were regularly reminded that they had rights to raise or not to answer any questions, and to withdraw from the study at any time without consequence.

Confidentiality was a key concern among participants. Most only agreed to participate, if their chance of being identified was minimised as much as possible. However, anonymising participants' identity was not a straightforward process. The choice of pseudonyms involved critical reflection on the cultural as well as ethical implications (Lahman et al., 2015). Whilst I had originally intended to use humanised pseudonyms that had higher cultural relevance, some participants raised concerns that their or someone's chosen name might be unintentionally associated with particular personalities. This could have led to unintended consequence, if they were evaluated by the authorities. Hence, the preference was to use a letter to represent the category of participants, and a number assigned randomly. In the next chapters, the participants are represented as follows in Table 4.8.

Table 4.8

Assigning pseudonyms

Participants	Pseudonyms
Teacher	T1, T2...T16
Teacher Trainer	E1, E2...E16
Government Official	P1, P2...P10
Dean of Studies	DoS1, DoS2

As the schools were concerned about being identified, the agreement was that no photographs would be included. The use of audio-recording for data collection also became a dilemma, despite its usual usefulness in quality assurance and performance monitoring (Berazneva, 2014). Prior research asserted that participants are less comfortable and more formal when being recorded (Al-Yateem, 2012). They might also show signs of refusal, including "active" and "latent" resistance ranging from refusing to sign consent, not openly answering questions, to objecting to researchers' note-taking (Kizlari & Fouseki, 2018).

Discomfort could be felt even when privacy and confidentiality were promised, often due to the wider reform atmosphere I mentioned in Subsection 4.5.3. I shared similar views with Hayes and Mattimoe (2004) that these responses were not barriers, but rather, important issues for researchers' to reflect on the negative consequences as well as the ethical implications in these refusals. Many of my participants clearly expressed the non-use of recording as the condition for their participation. Officials also often emphasised that they were not "policymakers" or "politicians". For instance, one said, "we just write techniques but we also of course based on the government policy, we don't make policies. We are technicians, implementors only". In those situations, only extensive notes were taken to facilitate analysis.

4.7.2 Reflection on cross-cultural issues

Ethics as a continuous act of moral and epistemological reflection deserve more discussion than merely adhering to ethical guidelines. Simons and Usher (2000) use the term "situated ethics" to recognise that given the diversity of research practices taking place across cultural settings, decontextualised codes could be inappropriate or difficult to observe. Other authors have similarly reported dilemmas faced by researchers undertaking cross-cultural research, when research ethics are often insensitive to contextual realities (Ebrahim, 2010; Holliday, 2013; Robinson-Pant & Singal, 2013; Tikly & Bond, 2013).

Following this line of argument, I was highly conscious of the limitation of being an "outsider" in the context. I deeply cherished the supervisory relationship in my affiliation to UR-CE. As an experienced professor who had been active in teacher training and international consultancy, my local supervisor was aware of the socio-cultural dynamics in the setting. Apart from the inviting of participants (see Section 4.5), his expertise was also helpful for data collection and analysis, in that certain perspectives could be exclusively shared with such an insider (Flynn & McDermott, 2016, p.11). Prior research identified "cultural noise" or limited mutual intelligibility in cross-cultural communication as a key factor that can impede the accurate interpretation of data (Anderson, 2016; Banister, Begoray, & Nimmon, 2012). These were reflected on, if not mitigated, through our regular discussion. That said, some of the dilemmas that arose are described below.

In the invitation of participants, informed consent was to ensure autonomy and voluntariness among those taking part in the research. However, these concepts could be understood differently in relational cultures, where all participants are reached through one or more

gatekeepers. Whilst in principle, support from gatekeepers should not overrule individual autonomy to refuse research participation (Singh & Wassenaar, 2016), others have reported how this can be the case due to the respect and obedience to the top hierarchy in collectivist cultures (Durham, 2014; Honan et al., 2013). In particular, when there is a large power distance between superiors and subordinates, little space can be left for the latter to air their views (Ghosh, 2011). My local supervisor believed Rwanda had a similar cultural expectation, in which it would be “unimaginable” for any junior staff member to reject the request from their senior colleagues or direct manager. This implied participation might not be entirely a free individual decision. The scenarios experienced during the recruitment process are listed in Table 4.9.

Table 4.9

Issues in recruiting participants

Participants	Immediate gatekeepers	Issues in the process
Government officials	Departmental supervisors	The departmental supervisors brought me into the officials' offices, and they all accepted being interviewed right away even if they were at the time occupied with other matters.
	Local supervisor	They accepted participating in the research after noting the connection with my local supervisor.
Teacher trainers	Deans of relevant schools or departments at UR-CE	The deans brought me to meet the trainers in their offices or forwarded me their contact details, and all accepted to be interviewed.
	Local supervisor	They accepted participating in the research after noting the connection with my local supervisor.
Teachers	Dean of studies at respective schools	The head teachers granted me access to their schools once the referral was made by my local supervisor. Then, the DoSs called teachers to meet me during lunch break, and all agreed to participate.

The recruitment process showed that the connection to my local supervisor, who was also most participants' revered former professor or colleague, was not without its complications. The trust entailed by this connection had clearly made the local community very hospitable and welcoming. However, my positionality, participants' perception on their autonomy and the

quality in subsequent exchange might all have been unwittingly influenced. It was unclear to what extent did this connection together with the research permit issued by the Rwandan government jeopardise participants' perceived autonomy to take part in my research. Not to participate might not even have been perceived as an option. For instance, DoS2 said, "Yes, the professor has already *informed* us of your programme, so for us of course there is no problem. We are very *cooperative*". Furthermore, most teachers signed the consent form without reading it thoroughly. When I was explaining, interruptions like "it is okay no problem let's start. Here I tick? I sign where?" (T10) were quite common. Some teachers also trusted the research when their leaders accepted, saying such things as, "the DoS is aware of this, so me, I have no problem" (T16). Others even viewed it as an honour to be recognised by their leaders, such as one who retorted "the DoS called, me so it is my pleasure, I am very happy to help" (T5).

However, despite the agreement to participate, often participants did not attend the agreed meeting as previously arranged. Teachers often said "can you come tomorrow? I am busy now". From my cultural lens, as Chinese culture upholds modesty and harmony, such response aligns well with one type of refusal strategy known as "offering alternatives" (Yang, 2008). I often felt it inappropriate to contact participants again. However, my local supervisor reassured me that this behaviour was normal and that "persistence" was important in Rwanda. He explained the notion of "African time", which referred to the relaxed concept of scheduling and attitude to commitment. Prior research supported this by highlighting not all cultures have temporal concepts based on "clock time", but rather, "event time", where the emphasis is on events and interpersonal relationships (Brislin & Kim, 2003). Punctuality could also be situationally defined. Multiple factors can be taken into consideration, including the status of the persons involved, degree of collectivism, nature of the meeting and personality, among others (White, Valk, & Dialmy, 2011). Besides, when most daily activities in the context were expected to be in face-to-face modality, significant delay was not uncommon due to unpredictable road conditions, for instance. Due to these different cultural expectations, the research process required a lot of time and careful interpretation.

Next, privacy and confidentiality had to be considered beyond anonymity. There was a dilemma faced in deciding on the interview location. Except for high-ranking officials and school leaders, individual offices are uncommon. Hence, third-party presence was almost unavoidable. Previous research has suggested this is associated with the country's level of

individualism and wealth, in addition to factors such as participants' education level, gender and the interviewer's characteristics (Mneimneh, Elliott, Tourangeau, & Heeringa, 2018). When a collective form of life is preferred, even home is not a private space, as others from the community may well be present during the interview and it would be socially inappropriate to ask them to leave (Hamid, 2010). Participants in the current research generally preferred interviews to take place in communal or public areas.

Table 4.10

Interview location

Participants	Interview locations
Officials	<ul style="list-style-type: none"> • Personal or shared offices
Teacher trainers	<ul style="list-style-type: none"> • Staffroom • public space at other UR campuses • public restaurants
Teachers	<ul style="list-style-type: none"> • Communal space outside the staff room • inside the staff room • computer laboratory • public restaurants

Three teachers explained that private activities at “special” locations could look suspicious. For instance, colleagues could ask “why only he is taken away to tell *mzungu* things, but I am not involved” (T6). At another school, all participating teachers expressed preferences for the bench under a tree, where the school community usually interacted. Whilst there was no sign of any individual “intruding” on the interview, a strict sense of privacy was not possible. I still felt that it was important to respect participants’ preference.

As the research progressed, rapport-building also became a problematic issue. This generally refers to an establishment of trust, thus resulting in comfortable and harmonious interactions with participants (McGrath, Palmgren, & Liljedahl, 2019; Morgan & Guevara, 2012). Some common features are suggested for researchers, including being clear, polite, friendly, respectful, neutral, non-judgmental, sensitive to any emotions, and giving respondents the opportunity to ask questions (Cohen et al., 2011; Merriam & Tisdell, 2016). While serving as a strategy for rigour, it is also problematised when researchers treat it as a procedural way of “doing” rapport. Glesne (1988) mentions the blurry boundary of rapport and friendship, which often leads to misunderstanding, intentional deception and an exploitative relationship. Duncombe and Jessop (2012) similarly question researchers’ insincerity in “faking friendship”

to persuade interviewees to disclose experiences and emotions. While I was cautious of the professional boundary, at times it was blurred when hospitality was taken into consideration. Realising I have remained single beyond the locally expected age of getting married, some teachers and their colleagues often sent me affective and intimate messages asking for the development of a personal relationship. Invitations for home visits were also extremely common, which I found emotionally challenging to turn down. As per the advice of the abovementioned authors, I was also cautiously avoiding “faking” any friendship, even if I was in dire need of data. Before any misunderstanding escalated, I sought culturally respectful ways to maintain an appropriate distance. I honestly shared with those teachers that the work was my priority, and that I was not open to any relationship at the time.

Lastly, I maintained a close connection with the research community to explore the possible ways of “giving back” during and after the research. Prior studies have critiqued that researchers have often conveniently neglected the disruption and lack of profit for participants (Jacobsson, 2016; Koitsiwe, 2013). As Denzin and Lincoln (2008) argue, ethical research has to consider democratising knowledge production, which includes transforming it into a beneficial act for the communities. A principle is to maintain a relational and reciprocal social relationship mediated by power, privilege, and lines of difference (Gupta & Kelly, 2014). During the recruitment process, many participants already questioned the practical value of research. For instance, *E1* noted “we can help you yes when I have time. But these issues to us, they are not new, we all know it.” A few teachers and trainers were rather pessimistic about the ability of research for change-making. They described how most recommendations hardly had any impact on their living and working conditions.

I then explored if “giving back” could take different formats. While I agreed that monetary payment was the direct form of “giving back”, it is also controversial. A meta-analysis of 128 studies showed that extrinsic rewards tend to have substantial negative effects on intrinsic motivation (Deci, Koestner, & Ryan, 1999) and a similar crowding out effect was confirmed by a subsequent review (Zutlevics, 2016). Some found that participants were lying for the financial incentives (Descartes, Asencio, & Blank, 2011). Payment is also evident as increasing respondents’ willingness to participate in research regardless of the level of risk involved (Bentley & Thacker, 2004). Head (2009), thus, warns researchers of the corrupting power of money, which could reduce research to merely a marketised exchange. However, for underprivileged contexts, Hollway and Jefferson (2017) value payment for equalising the

relationship, when researchers' material power could compensate for participants' time. For vulnerable groups, even a small payment could significantly improve their lives (Liamputtong, 2011). Alternatively, Mweemba, Ali and Hyder (2018) find that a careful negotiation with the community on fair non-monetary offers is still advised for building collaborative partnerships.

In my study, no monetary payment was made to any participants. My major concern was that a research relationship founded upon tangible rewards could impact negatively on informed consent and data quality, when there was coercive inducement on recipients to respond in certain ways (N. King & Horrocks, 2010). In addition, the knowledge exchange activities were supported by Rwandan National Science, Technology, and Innovation Policy. Interviews with government officials at ministries were considered as obtaining public information (NCST officer, personal communication, 22nd Mar 2019). Similarly, as advised by my local supervisor, under the "Law N° 04/2013 of 08/02/2013 Relating to Access to Information", Rwandans are encouraged to provide transparent access to public information. For him, payment could risk disrespecting the law and causing corruption, which would leave negative consequences for the research culture. Considering all research activities were completed during standard school and office hours, I decided not to "give back" in monetary terms.

Instead, I regularly consulted gatekeepers and participants about making the exchange mutually meaningful. School leaders and teachers usually wished students could interact with international visitors as sources of inspiration. Thus, after daily activities, I often stayed behind at schools for sports and cultural activities. I also assisted school A with pioneering a school magazine. On knowledge dissemination, the preliminary findings and research instruments were shared with the participating schools²⁰ as well as UR-CE and NCST, in line with the affiliation agreement. I remained in close communication with UR-CE teacher trainers and other teacher training partners. This had led to some identified themes being planned to be addressed in future CPD programmes.

4.8 Improving trustworthiness

Attention was also paid to ensuring research rigour. Qualitative analysis has been described as an enterprise "more of an art than a science" (Robson & McCartan, 2016, p.460), or as Denzin

²⁰The sharing with schools was only for teacher development purposes. Given all school members were aware of the participants in the research, to avoid potential mistrust and embarrassment that would pose a risk to collegial relations, all examples presented were anonymised and were not drawn from the same school when the presentation of the preliminary findings was taking place.

(1994) suggests, “there is only interpretation” (p.20). Likewise, Hammersley (2007) recognises that qualitative studies are like imaginative literature or fiction. These notions have led to the concern that given the ever-changing and diverse research paradigms, a universal set of evaluative criteria is rather unrealistic. Sandelowski and Barroso (2002) suggest that “appraisal” can replace evaluation, including aesthetic and rhetorical concerns. Aspects like relevance, contribution, ethics and reflexivity have also been considered (Finlay, 2006; Rolfe, 2006). Some of these factors have already been discussed in the previous sections. Below, I reference Lincoln and Guba's (1985) popular framework not as the golden standards, but commendable points to improve the research. Four major criteria were used to establish “trustworthiness” of the research.

Table 4.11

Establishing trustworthiness (adapted from Lincoln and Guba (1985), Creswell (2013) and Shenton (2004))

Criteria	Meaning	Strategies
Credibility	The confidence that the findings are accurate.	Prolonged engagement Triangulation of methods Peer debriefing Negative case Member-checking
Transferability	The attention to contextual realities of the case for readers to compare, which replaces generalisability.	Thick description
Dependability	As qualitative research is non-replicable, the attention is on how factors of instability and other changes happen to influence the study.	Inquiry audit
confirmability	Ensure the findings and interpretations accurately reflect the participants' perspectives.	Audit trail Triangulation of methods reflexivity

The above discussion has covered reflexivity, triangulation of methods, recruiting different types of participants, thick description with fieldnotes, and rapport-building. The discourse below addresses member-checking, prolonged engagement, peer debriefing with my local supervisor, negative case analysis and audit trail.

As a key strategy for credibility, member checking was not easy to achieve. While it is valued for as a reflexive process to bring changes in intrapersonal, interpersonal, and political

dimensions for participants (Koelsch, 2013), some experience it as intellectually threatening due to the worry over how they might be represented as inarticulate or ungrammatical (Forbat & Henderson, 2005). My experience was similar to Thomas (2017) when member-checking was deemed intrusive by interviewees, and even leading to providing less data than one-off encounters. When I explained to the participants the importance of accuracy and presentation of their voices in my final report, most noted they would not have time and one interaction would be “enough”. While various teachers commonly noted they had “no problem” with my data accuracy, T3 once said “you are PhD and I have only bachelor of course we respect you!”. This reflected the high social status associated with degrees in Rwanda, which led to participants’ discomfort or shock when an opportunity for equalising the hierarchy was offered. In the end, only two officials and two teacher trainers agreed to read through the transcripts. However, there was no follow-up beyond a brief approval signalled by “ok” or “good”. Subsequently, in my later interviews, I constantly checked with participants by summarising their words after any lengthy response, such as in the following.

Box 4.2

Interview excerpt of checking

Me: You mean the key difference between LCP and the previous approach, for you, is that previously you were not envisioning this kind of person to be produced, so that you used a different approach of teaching?

E12: Well no, no. I wouldn’t say that it was not envisioned, but because as I said using a knowledge-based curriculum in teaching is easier. Again this takes us back to the life of teachers, to be able to be a facilitator to students, to go close to students, to understand his or her own localities and applications you need a motivated person.

This clarification had deepened the discussion by highlighting more teacher-related factors in LCP. Hence, it supported an earlier reflection that member checking should go beyond a “final” error-checking, by using each macro-stage of interpretation as a dialogical ground for the next encounter of knowledge co-construction (Harvey, 2015).

Next, prolonged engagement was deeply helpful to enhancing the quality of interactions. The nine -months of fieldwork provided flexibility and opportunities for extensive engagement with most participants in, and beyond the research setting. My contextual awareness was also much enriched. This was important to address the methodological critiques on interviews and observations. First, the interview has been questioned in relation to its ontological status to

reflect realities. Some claim that human thoughts and actions are not fully transparent to ourselves (Andrews, 2012; Gorski, 2013). The term “interview society” questions the unproblematically treated authenticity of narrated experience (Atkinson & Silverman, 1997). Other studies have similarly pointed to the possibilities of having artificial, performed, or even untruthful responses during interviews (Denzin, 2001; Hammersley, 2003; Lee & Roth, 2004; Myers & Newman, 2007; Roberts, 2007), especially in elite interviews where power and hierarchy are even more imbalanced (Berry, 2002; Harvey, 2011; Mikecz, 2012). A similar concern is also found regarding observations. With the social desirability bias, also termed the “Hawthorne effect”, reactivity, or the “observer’s paradox” (Labov, 1972), respondents may present an image deemed as being socially acceptable (Collins, Shattell, & Thomas, 2005).

Prolonged engagement has been suggested as being helpful as researcher's presence would gradually be accepted and naturalised when long periods of time as spent together with participants (Padgett, 2014). At the schools, I was also invited to other school activities, such as sports matches, local festivals, inter-school competitions, daily tea breaks and lunch. The informal time offered invaluable opportunities for me to share casual conversations with the school communities. As time went by, I found teachers being much more open to initiate discussion even if I had not asked any questions.

I also sought more opportunities to learn from teacher trainers and officials. I visited VVOB and some of their CPD programmes in collaboration with UR-CE and REB. I also shadowed my local supervisor and a few trainers invited to participate in this research as they taught at UR-CE. Despite this training not being formally captured as research data, the additional exchange I had with these key local stakeholders was crucial in contextualising the data. For instance, the challenges reported by participants became lived experiences, as we had all had to deal with inter-provincial travel, large class sizes and the structure of training. Their sharing of diverse research experience also contributed to my reflection in this chapter.

These interactions were also helpful for confirmability, which was to ensure the findings and interpretations accurately reflect participants' perspectives. This is not easy as researchers have to engage in “double hermeneutics” to interpret participants' interpretations (Scott & Morrison, 2006). This brought up a critical issue regarding what and whose “voice” or knowledge was kept (Janmaat, Rao, & McCowan, 2016; Tuck & Yang, 2014). Hence, it was decided that an audit trail would be included so the readers can look at the data analytic techniques used for interpretation (Lincoln & Guba, 1985, p.323). Excerpts of interviews or other forms of

evidence would be included when the findings were presented. My aim was to make my personal biases transparent and explicit, which was supported by peer debriefing. However, since sharing unpublished data in Rwanda involved ethical concerns, peer debriefing was only possible with my supervisors. It was a process of critical reflection with a trustworthy, empathetic, knowledgeable peer to explore possible areas of bias, and spot divergent ideas about emerging themes (Spall, 1998). During the fieldwork, I had weekly meetings with my local supervisor to discuss difficulties encountered and reviewed anonymised data. Based on his knowledge, he highlighted some under-reported themes that deserved more attention. I then experimented with different probing strategies, such as the visual aids described in Subsection 4.6.1. We maintained regular contact after my departure from the field.

While I relied on the fieldnotes to address transferability issues, attending to dependability, I had provided detailed description of the research design, implementation and operational detail of collecting data in this chapter (Shenton, 2004). Memos and a research diary were kept for tracking the analytical process. As noted by Nadin and Cassell (2006), as researchers detach from the field with persistent reflexivity, interpretations will evolve. These changes will be made transparent in the analysis. I now turn to explain this process.

4.9 Data analysis

To analyse the data for an exploratory case study of a relatively new phenomenon in Rwanda, thematic coding analysis was chosen. It is a descriptive strategy facilitating the exploration of patterns, regularities and structured routines (Ayres, 2008; Creswell, 2013; O'Reilly, 2009). The analysis consists of three concurrent and iterative flows of activity: data reduction, data display, and conclusion drawing (Miles & Huberman, 1994).

I first transcribed the interview and observation data. This was already a process of data reduction as others have recognised transcription as an impoverished and decontextualized substitute for the complex realities (Flick, 2014, p.96; Kvale & Brinkmann, 2015, p.204). I used the fieldnotes to fill in the non-verbal cues, such as participants' facial expressions and significant pauses that signalled hesitation. To help in reconstructing the teaching scenario, the narrative description written during classroom observation was compared with the audio recordings. After that, all transcribed interviews and observations were coded in NVivo 12. Informed by the literature and the curriculum framework, *a priori* categories about LCP were identified as follows.

Table 4.12.

A priori categories

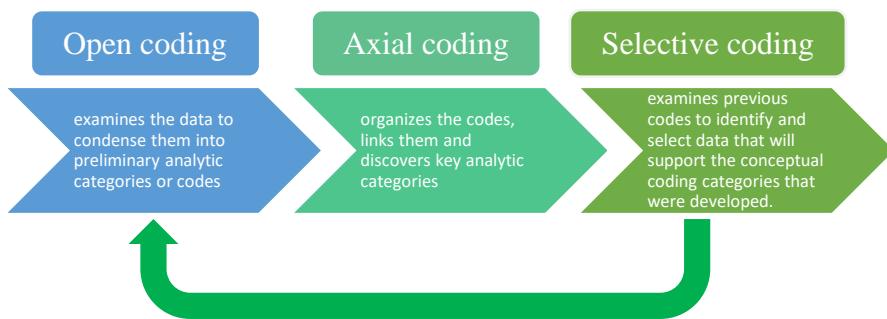
Interviews	Observation
<ul style="list-style-type: none"> • Rationale of LCP • Roles of teacher • Roles of student • Methods of LCP • Enablers of LCP • Challenges of LCP 	<ul style="list-style-type: none"> • classroom setting • pedagogical activities of teachers and students in class • teachers' specific strategies <ul style="list-style-type: none"> ○ classroom management ○ meeting differentiated needs ○ engage with prior knowledge ○ cross-cutting issues ○ linking theories to real-life ○ values and attitudes

While keeping the above categories in mind, I referenced Neuman's (2014) three-step coding process. I began to form open codes by using mostly descriptive ones. This was by attaching a label to the data to break them down into segments (Benaquisto, 2008; Mertens, 2015). An "iterative-inductive" approach was used to read and re-read the data, with the codes being continuously redefined, merged, or added to, thus reflecting the emerging concepts apart from the pre-figured categories (O'Reilly, 2009, p.37).

This iterative process was not independent of the data collection process. Often emerging meanings were found when I had additional exchange with participants. I had remained open to multiple interpretations, with more connections between themes being made with increasing familiarity with the contextual details. Throughout the coding process, memos are written to reflect on the selective process, conceptual ideas derived, and any emerging thoughts (Groenewald, 2012). Next, analytic choices were made by grouping the codes into sub-categories, and they were refined, rearranged and regrouped as coding continued (DeWalt & DeWalt, 2002; Saldaña, 2014). The final coding sheets are provided in Appendix I and J for analysing interview and observation data respectively.

Figure 4.4

Iterative coding process (Neuman, 2014, p.481-484)



Despite NVivo 12 assisting the analytic process by offering more systematic data management, the software is not utilised to replace human analytical capacity (Blismas & Dainty, 2003; García-Horta & Guerra-Ramos, 2009). While I referenced the constant comparative method suggested by Glaser and Strauss (1967) by comparing each new descriptive code with the previously coded data, a bias was felt. I unconsciously wanted to fit new data into the established nodes emerging from cases coded first. This is known as “confirmation bias”, which can lead to humans give attention towards confirming evidence disproportionately (Gilovich, 1991, p.30-37). To allow all voices collected to be compared, I then manually coded all transcripts in random order, and revised the digital version. Finally, the themes were developed by comparing the categories in the same and across the teacher, trainers and government levels. Then, these codes were recontextualised and reintegrated into themes to create a reduced data set drawn from across all cases (Ayres, Kavanaugh, & Knafl, 2003).

The data presentation in the finding chapters will focus on identifying similarities and differences of patterns within, and across stakeholder groups (Patton, 2002). Recurring categories were to aid identification of convergence. However, their empirical frequency was not to indicate level of significance (Javadi & Zarea, 2016, p.36). Rather, outliers or negative case analysis was valued. The comparison of perceptions and practice of LCP also helped to identify dissonances. The dissonances or conflicting discourses within the same actors were not necessarily problematic, but rather, these were reflective of the complexities in real-world dynamics (Antin, Constantine, & Hunt, 2015). For displaying findings, tables would be used. It was recommended as a useful tool to visualize the summary of observed empirical patterns, especially for cross-referencing concepts across cases to inform the theoretical account (Cloutier & Ravasi, 2021). Verbatim quotes were also included which could enhance readability and provide evidence for the researchers' analysis and interpretation (Corden &

Sainsbury, 2006). After reflecting on the methodological process, I will now turn to present key findings of the study in the next chapters.

CHAPTER 5 PERCEPTIONS TOWARDS “LEARNER-CENTRED” PEDAGOGY

This chapter discusses the findings from the interviews conducted with teachers, teacher trainers and officials about their conceptualisation of “Learner-centred” Pedagogy (LCP), as promoted in the Competence-based Curriculum (CBC). The first part reports participants’ perceived rationale behind LCP, followed by the perceived roles of students and teachers regarding it. Despite the similar descriptions of teachers as “facilitators”, and students as “active” learners, there was a dissonance in their exact meanings. The majority explained these roles based on student participation in learning activities and cultivating holistic values. However, given the local realities to be discussed in Chapter 7, some participants worried about the risk of the polarising of pedagogical approaches at the expense of learning. Hence, they preferred viewing LCP based on linking content to everyday realities. Lastly, the desired outcomes of LCP are discussed. When addressing the limitations in the previous “teacher-centred” pedagogy (TCP), LCP was expected to help students cultivate competencies for individual endeavours and national socio-economic development, in addition to promoting inclusive education for all.

5.1 The rationale behind LCP

There was a consensus among all participants that the LCP reform was important. Despite only a few officials and teacher trainers discussing whether LCP was a “best” practice supported by learning theories, all participants were hopeful it could fulfil the changing purposes of education (Section 5.5).

5.1.1 LCP as “best” practice

Given LCP had been officialised in CBC as an approach to achieving curriculum goals, it was common for participants to use the two terms interchangeably. While teachers did not comment on the emergence of LCP, a few officials and trainers debated its suitability in Rwanda.

Three government officials believed CBC was the “best” practice used by other countries, thus indicating that it had been “borrowed”. P6 described LCP as “one of the best to be used in education”. P1 mentioned how policies in Singapore were referenced, while P2 commented that western countries had had this curriculum “20 years before” when Rwanda had the “ancient” content-based curriculum. They all explained how LCP was shared regionally under the East Africa curriculum framework. However, P6 and P7 stressed that Rwanda was not

simply “borrowing”, but also, adapting LCP to the context. In P7’s words, “we compare, we discuss, but not to forget our realities”. Two trainers; however, challenged the extent of LCP’s contextualisation. For E16, LCP was “an emanation from outside, from Europe, or the Occident” and was reflective of “foreign practices that are experienced in Occident or countries, which are developed”. E9 requested that the officials observe the following:

You cannot just copy from outside the country. You have to design contextually, not copying from somewhere and import[ing it] here. Maybe [you] should allow progress through school settings, and eventually it will become our own.

In contrast, four officials and a trainer maintained that Rwanda was not pressurised into officialise LCP. P2 contended there was local agency in “let[ting] ourselves guiding and governing ourselves”. He added it was “very very critical” for international partners to align with government priorities. Both P10 and E5 similarly believed international partners only supplied funding and materials. P5 asserted that, “you can’t say it is from outside. It is in the system”, being deemed as a methodology to “help students understand; help them to be competent”. Three respondents P6, E11 and E12 held that whether LCP was “best” practice ultimately relied on teachers implementing suitable practices, rather than changing the curriculum itself.

5.1.2 Learning theories

How LCP was decided to be the “best” for Rwanda was not further elaborated upon in the interviews. However, constructivism was briefly discussed by two officials and four trainers as a theory in support of LCP, but no teachers commented on any educational theories. In this regard, E12 believed that behaviourist philosophy had reduced learning to the “reproduction of cognitive knowledge”, which had limited relevance to Rwandan students’ lives. Constructivism was then elaborated upon as a principle to build on students’ prior knowledge, by “teaching from the known to unknown, or from the simple to the hardest, the complex” (E12). Using an analogy of the construction of a house “from one layer to another”, an official P4 explained constructivism meant ‘learners construct the competencies, the skills, the values step by step’. Another trainer added LCP also referenced socio-cultural theories, which proposed “knowledge is co-constructed; so you construct knowledge together with others” (E5). While some teachers did use similar terms that viewed students as responsible for “constructing”

knowledge through activities (Subsection 5.2.2), they did not explicitly mention whether this understanding was supported by any learning theories.

These five respondents maintained that, when adopting these principles, no specific classroom method had been prescribed, which is an issue to be returned to in Section 5.4. There was a specific concern about whether students participated meaningfully in learning activities following the reform. This had led to a divergence in conceptualising LCP through activities and content, which is returned to in Subsections 5.3.2.1 and 5.3.2.2, respectively.

5.1.3 LCP is “not new”

While LCP was largely associated with changes, seven officials, seven trainers and five teachers doubted its newness. They noted that some ideas in LCP had been long embedded in the Rwandan education system. On the label “learner-centred”, E16 remarked “we have always been asked to focus on learners...the core business of education is always about learning”. Regarding the desired outcomes, E14 questioned “the so-called 21st century skills”, as he believed Rwandan traditional education of *itorero* similarly had a holistic promotion of practical knowledge, skills, attitudes and values. Similarly, E2 noted the same desired outcomes were already in place in 1970s, namely “*savoir* (knowledge), *savoir-faire* (skills), and *savoir-vivre* (attitude)”. E14, thus, questioned the preference for LCP over “pedagogies that existed before”.

For respondents with an *activity-based* understanding of LCP, including teachers, the methods were also not new. For instance, T11 shared how he always “gives learners an opportunity to do it”, while T15 specified presentation and group discussion have “always been there”. An official, P5, similarly indicated even under “ancient methods” teachers were never confined to lecturing (P5). Thus, two trainers (E8 and E11) and two teachers (T12 and T15) suggested it was only the higher degree of involving students and focusing on real-life application that distinguished LCP from previous approaches. By emphasising the ideas and desire for LCP as internally grounded, these respondents sought to improve local ownership of the reform and encourage further reflections on teaching and learning, rather than rejecting changes as being impossible given the difficult local conditions.

5.2 Students’ roles

As all participants reported varying degrees of dissatisfaction with the previous “teacher-centred” pedagogy (TCP), described as “traditional” or “ancient”, LCP was often

conceptualised in as a change from TCP, in particular, in terms of the roles of students and teachers (Sections 5.2 and 5.3). To begin with, five trainers and four teachers converged on a rather literal meaning of LCP as putting learners “at the centre of learning”. One teacher asserted more specifically that, “almost 70% is a part of the students” (T12).

5.2.1 Students under “Teacher-centred” Pedagogy

Participants often contrasted students’ active roles with those under TCP. Two officials mentioned with reference to British philosophers in 17th century, students were treated as “empty heads” (P3) or “tabula rasa” (P2). P10 explained “what is given by the teacher is to be taken”, while students were “not allowed to discover or to learn on their own”. Teachers shared similar understanding. In T11’s words, the learner “knows nothing...you are not expecting the learners to challenge you...to come up with new ideas”. Students were expected to be “watching and listening” (T3) as they were “receiving from the teacher” (T5). DoS1 added that the culture assumed learning was from experienced persons, and hence, students were “nothing in terms of academics” and would expect the teacher to “pour into students whatever he knew”. With time concerns and power dynamics, teachers similarly stated “nobody can say stop teacher” (T1). Some teachers even “ban students from asking” during teachers’ presentation (T7).

The predominant focus on knowledge transmission was critiqued by all participants for leading to passivity among students. For instance, P2 described students as having been “very very passive, just receiving notes, and memorising”. T5 called this type of learning “monotonous”, “bound” and a “boring reduction of knowledge”, when many teachers reused “old notebooks given in 1984”. Students were said to have become “lazy” and “reluctant people who wait for the teachers to tell them what to do” (T5). T12 added how students became dependent on teachers and “failed” to perform tasks, because “they know you will come and explain everything”. DoS2 supported these accounts by summarising how students and teachers became “lazy” as follows:

It created lazy learners who just sat there. They waited [for] the teacher to give, to cram work, so they can only take by head or hand and put back the content. It also produced very lazy teachers, they give enough notes for every year, but not to do research every time.

In total, seven respondents believed most students did not benefit much from schooling previously. In addition, E4 highlighted the content was largely disconnected from students' lived experience and thus, "not necessarily very important to the learners". In E5's words, students took part in "rote-learning", "ate too much content" and "learnt nothing". Coupled with an unfamiliar medium of instruction for most teachers and students, P3 observed that even students on-task might "write a lot but they don't understand. They will cram and then pass exams with marks". The low applicability of learning under TCP was expressed as a concern by nearly all the participants. According to P4, it was like language learners "failing to express themselves", or as T6 described physics students "couldn't be able to replace a bulb". This led to the application of learning being a key desired outcome of LCP (Subsection 5.5.1).

Furthermore, for three teachers and four trainers, the minimal student participation also left those in need of support unidentified. T14 noted teachers continued "without knowing students know or not", while E7 added teachers did not follow every student's progress and "relate from their experiences". Moreover, as T4 explained, previously teachers went with "brilliant students", who could follow while "slow learners are left behind". For two trainers such a system problematically promoted elitism. E15 argued it only rewarded students with best the memory and resources, which then led to education being "the studies of the elites". E4 elaborated that it was normalised to only ensure one's own success with the thinking that "I am the first it is good. If that one is the last, he will be lost somewhere, but that is not my concern." Reflecting the desire of making learning more inclusive, LCP, for most participants, promoted group work (Subsection 5.2.2.4), and helping every student (Subsection 5.5.4).

5.2.2 "Active" involvement in learning activities

All 16 teachers, echoed by 15 trainers, four officials and both DoSs held that LCP requires students' visible "active" participation in learning activities. For instance, P3 indicated "learners learn through tasks, they are the ones doing the task". For eight respondents (two officials, two teachers and four trainers), learning was the responsibility of students rather than teachers. A trainer elaborated upon this view as follows:

It's their job to learn first. So, their learning is not the teacher's learning. So, they must understand their role first before they think that the teacher always must be there to guide them. (E5)

It was to address the abovementioned "laziness", as P3 pointed out, that LCP was introduced "to make learners more responsible; conscious of their roles in their learning". T13 similarly expected LCP to make students "self-driven" and to "own their work", which was also valued by T12, who said they had to develop "the mood of working".

For seven teachers and a trainer, this attitude was crucial for boosting national examination performance. For instance, T2 made a typical comment that, "their purpose here is to study and to succeed...to get good marks". Most participants then expected students to participate "actively" in learning activities. In contrast, only P1 and two trainers described student involvement less as a responsibility, but more as a learning strategy for improving motivation and interest in learning. For instance, E3 believed more were "enjoying" science, because "it is very interesting for the young kids when they are doing it themselves".

5.2.2.1 Doing "research". On the specific activities, the majority of participants comprising seven officials, 14 teachers and 11 trainers expected students to do "research" outside of class time. All teachers converged on avoiding "lecturing" and rather, letting students "discover" or "construct" their knowledge from books and internet. It was typical for teachers to state that learning in LCP was "not given by teachers" (T10), or in T3's words, "not all I had to give to students". T13 added that only "the line of study" would be given. Table 5.1 shows some key quotes from participants who recognised student capacity in research:

Table 5.1

Selected quotes of participants describing "research"

Research	"Students are open, they know. Students are able to do everything. To give information is to block them [in] develop[ing] their capacities, their knowledge, and the competencies. Because they are capable of doing everything, they want motivation only". (P7)
	"Even kids know something they can work on their own" (E3)
	"To know something you are teaching...they can discover...they can search and get it." (E1)
	"What the teacher gives is not enough". (T1)

Table 5.1 (continued)

Research	“Most of the knowledge is constructed by students themselves. You just help the students to discover knowledge; to construct their own knowledge about certain concepts”. (T12)
	“They can even provide something which is not even taught by you”. (T9)
	“Learn more than what the teacher has prepared”. (T6)

While students were encouraged to do “research”, DoS2 highlighted teachers should also “get updated...to hear from students, get informed and have more package of content”, instead of just reusing old notes. T11 echoed this view, as he felt that “it looks so bad when a student asks you and you failed to give”.

However, the descriptions of “research” or “discovery” rarely went beyond the library-based search for information. For instance, T2 expected students to “discover a definition or the use of some words in sentences”. Both terms were sometimes articulated similar to the everyday sense of finding out. Regarding which, as T3 explained, “the new lesson can be discovered from my introduction...I guide them to discover themselves what they were supposed to learn”. More generally, T13 held that students were the ones to “research what they don’t understand”, while T10 mentioned “they discover what they can do”. An official similarly added students were “to discover in situations on their own” that went beyond the theories (P9). Despite the sense and specificity of “discovery” varying, the participants’ contributions reflected a common understanding of LCP in getting teachers to refrain from dominating the learning process, and letting students take more initiative instead.

Six trainers and six teachers generally appreciated the students’ research outcomes. For T1, students were able to bring new information, such as “elements that you don’t know...new ideas; some arguments that you can add in your topic”. This showed they were “intelligent” and “very clever” (T1). In particular, teachers valued research for improving student understanding of the topic, which supported lessons progressing efficiently. For instance, as T8 mentioned “they have even studied that area we are going to discuss, so it minimises the time we are going to use”. For two teachers, the spirit of actively looking for solutions or answers would be impactful on students’ lives outside the school (T6 and T13). Nevertheless, as I will highlight in Chapter 7, teachers faced the dilemma of how to motivate students who were underequipped to become involved in LCP activities, in particular, owing to insufficient resources. Different from teachers’ accounts, three respondents (one official, one trainer and

one DoS) argued that “research” was not simply about technical content, but rather, more about building on students’ prior knowledge, talents and capabilities. For instance, P9 noted students had “hidden knowledge” and teachers were there to “trigger” its discovery. This was further detailed by DoS1:

It is just like Socrates did; it is just to make sure you are going to reveal what is in the students. There is something which is hidden in the student, and what we have to do is just to show him that he knows.

5.2.2.2 “Talking” in class. Moving on to in-class activities, students’ “active” participation was expected to be visibly shown through talking. This was mentioned by fourteen teacher trainers, seven teachers and two officials, who commonly stated students should not “keep quiet”. Group work, presentation, and questioning were the most widely discussed activities associated with LCP, and this was corroborated by my classroom observation (Chapter 6). Other activities mentioned were practicals, debates, individual work, role play, field visits, reading aloud, storytelling, and social experiments. The focus on student talking was to address their assumed passivity under TCP, as demonstrated in the following quotes:

Table 5.2

Selected quotes of participants describing students “talking”

Talking	“teachers should talk less. Students talk more, but not one student at one time. All students should talk among themselves too. So, their talking time increases”. (P6)
	“They are giving ideas, saying something...I don’t need to talk too much as a lecturer”. (E4)
	“I cannot be the one reading in class only... it is very important instead of me talking a lot. I will give that time to students to express themselves, to talk a lot”. (T13)
	“You are not there to drain them...they are coming to present, then they are applying what they learn in class to outside”. (T11)
	“when they are in front to talk, it shows that the learning process is centered on them, not on teacher.” (T4)

To elaborate further upon when and how students “talk”, teachers explained that students were “to inquire or to ask where they don’t understand” (T15), “actively call teachers and ask for assistance (T4) and to “raise their hands and answer” (T1). Both T2 and T6 stated they expected to devote most of the time to “receiving feedback” from students after the assigned activities. Others did not explain further the details of talking, instead naming the activities or methods. This led to a popular conceptualisation of LCP based on the activities or teaching formats being used.

In addition, E1 and four teachers remarked that demonstrating the ability of expression, and attributes like confidence were indicators that students could apply learning. For instance, T15 believed students had acquired “self-esteem of being vocal” through presentation. This was again in line with the valued outcomes of LCP (Subsection 5.5.1). Students’ talking was also cherished as a valuable contribution to the class, with two teachers putting this as follows:

When a student is in front of others, he or she feels very proud. So, they like to be there, in front to show others that they are capable...that can also motivate others to work very hard. (T4)

Not living in the class like a pumpkin. She is useful to her classmates, because we are training these people... when I ask one to come and lead the class in prayer, I am training that person to be a leader. (T5)

With the challenge of English and the “fear” that most teachers described, as T11 explained, while many students were knowledgeable, they “cannot express himself or herself in front of others”. Hence, teachers were conscious of “slow” learners, who in T8’s words, were “helped by their colleagues”. For T12, with LCP methods “you make sure they talk something... make him try, then from there you help that student to explain”. They targeted helping students with vocabulary, English expressions, and grammatical mistakes. However, these were only achieved to a small extent and further challenges will be discussed in the next two chapters.

Twelve teachers also valued students talking during LCP to verify whether or not all had remembered and understood the previous lesson. For T16, “if the students are able to respond, you see that now they are able to understand”. T4 added that, “if a big number failed, the conclusion is that the lesson was not well-understood”. Likewise, T1 indicated that, if students “stay quiet”, often teachers would have to “re-teach or revise again until all students have understood”. Six teachers mentioned they targeted “slow” learners in questioning, as they believed many were “bored and not following” (T12), expecting “others will do it” (T7), and

“try[ing] to dodge” (T13). Nearly all teachers mentioned giving opportunities not just to “active” students whose “hands will always be up” (T8). Instead, as T13 emphasised, through questions, teachers needed to ensure all students actively “become part of the class”. A trainer E8 likewise said that the onus should be on teachers “to give a chance even to those who are shy, to give them chance to express themselves”. These in-class strategies were deemed helpful for teachers in identifying students’ weaknesses for further follow-up.

5.2.2.3 Busy working. Apart from talking, the majority of respondents comprising all interviewed teachers, nine trainers and eight officials viewed students busy working individually or in groups as another key sign of LCP. For instance, E8 mentioned students should be “performing all the activities” and “actively engaged”. This was further elaborated upon by E3:

Students should be working all the time. They should not stay in the classroom without working. Once the teacher enters the classroom for the learner-centred techniques, normally the work of students should start now... they should be all the time discussing between them; discussing about what they have done.

Teachers shared similar understanding as the trainers, and emphasised that students had to be “more active than the teacher (T4). In T9’s words, students must “involve in all activities, in every activity, in everything that you are teaching”. T11 elaborated, “basically everything should be done by the learners” even when he was “not there monitoring them”.

The reasons for students’ working were mostly associated with improving their memory and understanding. For instance, E3 remarked that when students did “all hands-on practice”, then “the knowledge will be internalised in him”. This was echoed by two teachers. T12 stated that LCP helped students to “retain even to recall” as when teachers were “just giving them the content they tend to forget”. He believed that, “if they are the ones who discover that knowledge, who create that knowledge, it remains in their brain” (T12). With a similar argument, T4 said when one was “listening”, one could “understand but you can forget...but when you see, you can remember. So, when you work you can just understand” (T4). He called this “hands-on and also minds-on”. However, how students should work on or think about the given tasks was not discussed in the interview.

5.2.2.4 Groups. Working in pairs or groups was another key feature nearly all participants discussed regarding LCP. Apart from T16, who stated group work had been made “compulsory” in the curriculum, the other respondents valued cooperation and teamwork when students worked in groups. In teachers’ words, students could develop “the spirit of togetherness” (T7), “loving and helping each other” (T6), and “lifting one another whatever they are doing” (T8). T5 shared the following: Man is not an island. You cannot live alone in this land, because even God has not just created one person; it is not good for man to be alone. So, you should not study alone. The collaborative spirit was expected to be extended to everyday life, including forging long-lasting friendships (T11), and peer support after class (T4). T6 added that many jobs required “working with others”. Hence, he wished students would acquire the “culture of working together”, so that in the future they would realise “I need to network with people; I need to look for the ideas from other people”. Building on the subject of collaboration, teachers especially articulated in detail how group work was for “quick” or “strong” learners to help “slow” learners. A typical explanation was “the best ones they group with the weak ones, so they lift them up” (T8). For T7, “if one of them misunderstand the point, then others can act as the help, to explain for the group”. E2 added that this offered a potential solution to large class sizes in which teachers could hardly attend to every student. Five teachers and a trainer observed the tendency of “slow” learners avoiding interaction with teachers, such as T2, who realised they were “shy or fear to ask me questions”. T1 and T15 explained with peers the language might be more accessible. “Slow” learners could ask peers “every question in every manner”, because “they use their own language, their terms, their expressions” (T1). For T11, this also created peer pressure to “motivate slow learners” to “catch up with their friends” as “they cannot sit and just look when they are not coping with the pace”.

Moreover, five teachers appreciated group work for the exchange of ideas. For instance, T9 mentioned students “use their minds critically to share ideas”, and the “creativity” from a student’s new idea was expected to help other group members. T3 emphasised how more students sharing with different views could lead to a balanced discussion. T10 echoed this by stating “the more members, the more ideas”. However, all participants also pointed to the paradox of lacking materials to let students explore multiple ideas (to be discussed in Chapter 7). Among all, only one trainer discussed the nature of the task. E5 held that this required challenging tasks that were not solvable individually, but rather, required students to “support each other to get far...to achieve something higher” (E5). As I will return to in the

next two chapters, in practice, teachers were often frustrated by students working individually or even off task.

5.3 Teachers' roles

Following the change of the students' role, the majority of the participants, comprising 15 teachers, echoed by 14 trainers and six officials, described teachers in LCP as "facilitators". While the majority defined this based on teachers' activities, concerning local circumstances in implementation and the reform goals, eight respondents argued that "facilitator" had less to do with teaching formats and more to do with the principle of situating teaching in everyday life. In addition, a strong emphasis was consistently put on teachers' role in the cultivation of holistic values and attitudes.

5.3.1 Teachers in "Teacher-centred" pedagogy

The "facilitator" descriptor was defined in contrast to teachers' role in TCP. The teacher was expected to "know everything" (P2). Apart from "masters" as used by three respondents, other metaphors included "the fountain of knowledge" (E12), "the sole source" or "possessor of knowledge" (T11 and P10), "a pastor who preaches in a church" (T4) and "a king in the country" (E3). Teaching was mostly one-way for teachers "to impart knowledge, to dictate" (P9). In colonial times, P6 noted it was common for teachers to stand on "an estrade (raised platform)", which reflected that the "teacher was higher up to be the master to deliver content". That said, two trainers and a teacher mentioned teachers were still looked up to for their knowledge and experience. A "highly learned teacher" could be praised by students as "wow he's very sophisticated" (E11). T12 added teachers also lived up to the expectation "to make all the students pass" by ensuring the practice questions matched examination needs, and by hardworking to ensure student understanding.

Similar to the perceived limitations of TCP in terms of minimal student participation (see Subsection 5.2.1), "rote-learning" was widely critiqued by all respondents. T2 described TCP as "just yourself talking". The legitimate knowledge was limited to the content given in class, as T15 pointed out, "what the teacher doesn't know, does not exist", while E10 echoed that "nothing out of what the teacher has provided would be taken as truth". Moreover, T16 described a lesson was just the teacher that the "demonstrates the content A to Z that's the end". Four participants shared further memories of teachers "writing on the blackboard and learners copying" (P7). The following was what E12 called "cram work":

Teachers could write on the board of about 2m, fill it five times, grab the notes and then you write. You go and then at night during what you call preparation time or prep, you cram.

Six teachers, as echoed by two officials and three trainers, attributed this style to the examination-oriented education. According to E10, the assessment only covered “the low level cognitive domain”, with only “a little bit of application, but rarely the evaluation or synthesis”. P10 echoed this observation by sharing that most questions were about recalling definitions instead of providing explanations. The examples given by others included “define the following terms” in sciences (E15) and recalling the dates of events or date facts in history (E12). To meet examination requirements, teachers were thus expected to “spoon-feed” students the answers (T7). T5 added that, “you don’t need to ask a learner what you did not give” and for T13, students would only “copy-and-paste what you have given”.

5.3.2 “I may not call it teaching, I prefer to call it facilitating”²¹

The conceptualisation of teachers as “facilitators” in LCP was often made in contrast to their roles under TCP. Both activity-based and content-based understanding of “facilitators” are reported respectively in what follows.

5.3.2.1 “Facilitators” in learning activities. Under the predominant activity-based understanding of LCP, participants associated “facilitators” with teachers refraining from the lecturing format and involving students in activities (see Subsection 5.2.2). A typical account was as follows: “to facilitate I have to form discussion about the topic...form debate, form group work, and research. Learners discover for themselves” (T3). When participants were probed to provide examples of how they “facilitated” learning in these activities, teachers’ actions before, during, and after the activities were elaborated upon respectively.

²¹ Quotes from T6, interview

Before activities: clear instruction and organisation. Ten respondents (two officials, five trainers and three teachers) associated “facilitation” with teachers structuring LCP activities. They converged on teachers providing clear instructions, time allocation, and objectives with clarity. P3 advised teachers to “make sure you define tasks”, while E1 added that teachers must “direct students” by “making it clear, showing what to do, how to do it, and the expectation” (E1). This was echoed by teachers like T13, when he mentioned that teachers were to “give them the way how to do it” and then, “guide them how to do it”. A few respondents used practicals in science subjects as an example when teachers provided materials and protocols. For instance, T12 explained teachers were “only to contribute resources to help students work in the learning environment”. Two trainers stated that teachers’ role was to provide a protocol for preparing chemicals and observation sheets. E3 believed this was “facilitation”, because “it’s not me who will go to take, for example, a beaker from the cupboard, but the students. They will go to collect everything” whilst E10 stated “a teacher does not do observation for learners, it is the learners who do observations; who collect information”.

During activities: support and guide. All 16 teachers, echoed by eight trainers and two officials, addressed teachers’ role during activities. Participants across levels similarly defined “facilitator” as teachers supporting students, but leaving space for them to work. E1 mentioned that teachers would “reduce their talk time”. Others included “to support but not giving everything required” (P10), “not being more active than the students” (E7), and “let students work on a lot of things more than him” (T6). T7 echoed these sentiments by stating the teacher’s role was “to grant people their rights to participate in activities through guidance and not achieving them by himself”. Similar to the perceived student roles (Subsection 5.2.2), P4 reiterated that teachers should “concentrate most of the activities on the learners” to ensure their “active participation in their own learning”. T9 provided an example in English. Instead of directly telling students, through stories “students they are themselves to identify from that story” the use of English articles. Two teachers felt LCP put less pressure on teachers as the “work is reduced” (T3), and they could “relax a bit because you just move around” (T10). Some trainers; however, critiqued teachers’ misunderstanding of their roles during student activities (see Section 5.5).

Specifically on facilitating group discussion, participants converged on describing teachers as needing to “move around”. This largely revolved around classroom management for maintaining discipline and monitoring student participation. Participants shared a common

concern that students might be off-task (to be discussed further in Chapter 7), “losing concentration” or “not on the right track” (T6). Trainers emphasised that teachers must stay with students, with both E3 and E6 adding that their role was to “motivate them” during discussion, and to check whether they were “sharing roles and responsibilities” (E7). This was further detailed by P10:

Teachers are there to find out whether instructions are being followed, then teachers make follow-up to see whether they are on the right track. If not, then they have to redirect. You will not leave them to do their work. You must be there for any problems that might arise.

Six participants added that teachers should help students overcome their difficulties by asking questions regularly. This was also in consideration of “shy” students “in groups just quiet” (T8). For instance, E10 believed teachers should regularly ask “please now that you think that, what if you do this?”. For T6, it was important to check with students “I wanted you to do this, how have you done it?”. He added, “I am facilitating her to come from one step to another until she gets the image of the thing I prepared for”. Similarly, T11 suggested the provision of hints as not all students could “fit the standard that you want”. Hence, he added, “you direct them where they are going to find the answer...guiding them to perform the task”.

End of activities: clarification and summary. For nine teachers, two trainers and an official, “facilitators” also had to provide feedback towards the end of LCP activities to support learning. P1 noted this process was to “build on what learners have, then they construct...so that they come up with new things” (P1). Also, given that students needed to hand write notes for revision, E1 underscored the importance of debriefing after group discussion to reach a “common agreement”. T7 called this type of “facilitation” as the “harmonisation of ideas”, which involved “coordinating ideas from different students” so that teachers “facilitate a student to understand more what was planned”. He further elaborated:

I also have to comment on; make it comprehensible to everyone in the class.... My role is just polishing a point raised by students and even making some changes, when they put there some difficult words; just making a change aiming that all people can benefit from the point we are presenting.

T15 likewise pointed out facilitation was by “making a point well-stated” so that the rest of the class could follow. Apart from general checking whether students had “acquired something” (T16), misconception was a common concern among teachers. For instance, T13 pointed out

“my role is to correct them...they may do it in the wrong way”. That said, T8 noted that, unlike under TCP, teachers engaging with LCP were not to “immediately say this is wrong”, but rather, to first let students explain. In cases of complex concepts, both T15 and T8 emphasised that teachers’ direct explanation was essential for clarifying doubts.

Regarding the interactive learning process, three officials and three trainers stressed that teachers should also promote an egalitarian relationship with students. For example, P2 described how LCP “puts learners on the same ground as the teacher”. This was reflected in the new classrooms, which no longer had the “stage”, with P6 noting “we want teacher and students to be at the same level, like equals”. Trainers likewise advised that teachers had to “accept to learn together with learners...they can also inform or inspire the teachers” (E16). E11 believed teachers had to appreciate that to “learn from students and collecting student voices” would help teachers to grow. E9 added that, with LCP it was “negotiable with students about what and how to learn and what methods”. While teachers did appreciate learning from students, this mostly relied upon their library-based research (see Subsection 5.2.2.1).

5.3.2.2 “Facilitators” in linking content to everyday realities. Despite the popular activity-based understanding of LCP, some participants concerned about whether LCP activities, in practice, genuinely help students acquire the desired competencies. For eight respondents, comprising five teachers, four trainers and two officials, “facilitators” also referred to teachers, who could help students apply academic theories to everyday life. This was in connection with the desired outcome of LCP to enhance the applicability of learning (see Subsection 5.5.1). These few teachers typically mentioned the need to discuss with students the application of lessons, such as “what is the purpose of this topic? We learn this topic, why?”(T2); and “how can that be useful in today’s life?” (T7).

These officials and trainers added that apart from questioning, contextualising examples and content was also crucial. P3 contended that teachers as “facilitators” should “open them to the world” by learning from “what is around them”, instead of “knowledge they can’t visualize or live in”. E14 echoed this by stating that it was vital to respond to the interests and needs of students as they were the “beneficiaries of the whole process”. P6 gave an example of how teachers could explain units of measurement in mathematics by visualising classroom objects and space. Likewise, E12 strongly believed a “facilitator” should “come close to a student, understand a student...take students to the locality to his own home”, so that teaching was based on the “contextualised knowledge of that student”. According to him, teachers should:

Facilitate the individual student as per his or her own capacity to understand and consume knowledge in her or his own environment...not starting from the theoretical perspective, which was written by a philosopher or economist long time ago. (E12)

E12 explained that the basics of economics, like demand and supply, could be learnt from local suppliers and consumers. Considering many students were cattle keepers in rural areas, he thus suggested questions like “why do local cows produce less milk than exotic cows?”. This could be followed by sharing interdisciplinary knowledge to “look after a cow, know the physiology of the cow, know what a cow can produce” and to run a business of dairy products.

This understanding was also to address a general concern shared by nearly all teachers about students’ motivation to participate in activities (to be discussed in Chapter 7). E12 believed it was important to “excite” students, who would engage in learning once they enjoyed the “surprises”. He pointed out this was not necessarily the case, if they were merely “put into groups” by teachers. The importance of this was also expressed by T5:

When a child realises that topic... “ah I have learnt something that can be helpful for me, good for me, helpful to the society”, they get interested. The following day you find them waiting for you in class, because they know you will give them skills that are going to help them as individuals and the society at large.

Four teachers shared a similar view of letting students learn from real-world issues. In T9’s words, he wished students could understand “empirical examples on the ground”. They similarly mentioned the wish for fieldtrips, especially when resources were unavailable in libraries and laboratories. T4 deemed “learning by doing” as being desirable, when students could see such things as chemical reactions in industries, while two history teachers hoped to visit and observe the features of ancient kingdoms with students (T15 and T11). T11 added that he would like to invite genocide survivors to a class or any “resource personnel” to facilitate students’ understanding of real-life experience. Most mathematics and science teachers raised the difficulty of their subjects remaining abstract and not easy to see as “part of our life” (T8).

5.3.3 *The holistic educator*

In addition to being “facilitators”, teachers were also expected to promote holistic education. All participating teachers, echoed by thirteen trainers and seven officials, reiterated teachers’ role beyond the academic aspects. P9 and T6 described teachers as students’ “advisor” or

“mentor” regarding life. T2 held that teachers should “love students”, while two teachers and a trainer described their roles as “parents”, who took care of all. Both DoSs interviewed confirmed that their schools had teachers regularly sharing conversation with students about the “important or complicated aspects of life” (DoS2). Two teachers believed these conversations were very effective for helping students at-risk of dropping out. T6 explained that students who faced significant challenges might not “feel free to ask for help”. These participants similarly explained that such care and respect were crucial for overcoming genocide legacies in Rwanda.

These participants also emphasised teachers’ role in promoting “good” conduct and behaviour through the cultivation of positive Rwandan values and attitudes. This was among the desired outcomes of LCP (see Subsection 5.5.3 below) Here are some key quotes from interviews.

Table 5.3

Selected quotes of participants describing education as holistic

Changing behaviour	“Education is about changing bad people into good people”. (E10)
	“They are in darkness, then a student is coming just to see clearly...what we do it is just to give them that light, so they can be discovering what is true and what is false. So, the importance of education it is to think critically, to find what is true and what is wrong”. (DoS1)
	“If you just go without knowing what is happening in class, so in that case I am not helping students changing behaviour, I am not helping them to think about the spirit of humanity”. (T13)
	“You can’t see kids doing bad things and I am here only to teach or to facilitate. No, you have to correct a child when you see him or her doing a bad thing”. (T6)

The “good” behaviour was associated with culture-specific values. For T13, it was important for students “to know their culture...how their ancestors were doing”, so that they would “not to go with the world behaviour, but according to the culture of our country”. The popularly stated values were those listed as cross-cutting issues in the curriculum, including entrepreneurship, environmental protection, respect for gender, and peace. In addition, the ideal values mentioned participants included accountability, compassion, teamwork, democracy, discipline, empathy, ethics, fairness, hardworking, honesty, human rights, hygiene, inclusion, patriotism, perseverance, respect, sacrifice, self-confidence, self-esteem, self-independence,

time-keeping, tolerance, transparency, and truthfulness. Most participants only listed the desired values briefly, such as this typical response:

They should not only acquire knowledge from the classroom, but also skills and values, like respecting the teacher, respecting the leaders, respecting the elders. (T6)

To promote these values in teaching, P1 explained the official textbooks must include positive values and cross-cutting issues, as shown below under a question about number sets:

Figure 5.1

Excerpt of Mathematics textbook for Rwandan schools (Secondary 1, student book, p.4)

7. Use set symbols to write the following sets.
 - (a) April is a member of {the months of the year}.
 - (b) A is a member of {the set of vowels}.
 - (c) 3 is a member of {the set of prime numbers}.
 - (d) 4 is a member of {the set of square numbers}.
 - (e) K is a member of the set of {alphabets}.
 - (f) HIV is a member of {sexually transmitted diseases}.



HIV is a sexually transmitted disease. It is a deadly disease and has no cure. Abstain from sex before marriage and stick to one faithful partner.

However how these values could be incorporated into learning activities was less clearly articulated. While cooperation or teamwork was commonly suggested to be promoted through group discussion (in Subsection 5.2.2.4), other values were mostly described as being told or explained to students. For instance, E3 stated that teachers should ask students to take turns in laboratory experiments, by telling them “you are learning together it is not one individual...don’t think you are the only one who knows everything, but other students also”. If students refused to share apparatus, T12 mentioned how he would “educate them that fighting is not good by taking an example of our history”. On promoting hygiene and cooperation, E10 stated teachers should ensure the sharing of cleaning responsibilities after class. T4 talked about how when charcoal stoves were left on indoors during the rainy season, he reminded students of using their chemistry knowledge that “burning charcoal must be done

in plenty of oxygen” to care for community members, so that “no one can die by suffocation”.

In contrast, four trainers and an official preferred that teachers did not directly teach values, which risked becoming “instilling” or “preaching”, as in TCP. Instead, they said teachers should act as “role models”, or what P3 called the “pioneer of peace”, who “always mind about what they say about morality and moral integrity”. E13 recommended that teachers should not “dictate” change, but rather, to let students “imitate” and observe why certain behaviours were “more suitable” than others. E5 believed students would acquire values once they were “in good hands of good educators”. For promoting kindness, sacrifice and social responsibility, E11 shared how he used social experiments for changes with long-lasting impact. Noting any memorable lesson had to “be real”, E11 explained that he had asked students to reflect on the following:

- How much money can you give up free without being so much affected?
- How much money would you be willing to borrow without feeling shy?

After the class agreed on 200rwf (£0.14) per person and collected 64000Rwf (£44.80) in total, he revealed to students the donation was to help a genocide survivor: “an old lady barely with clothes on, she only had wrecks like the house was almost falling”. He then guided the students to reflect on the lingering colonial and genocide legacies, and the possibility of local mobilisation for the right causes. He was of the view that teachers should “make sure students get a lived experience...that student who parted with 200rwf there’s a memory to that kind of value. Someone has to feel some pain”.

5.4 The concern of polarisation

To summarise the above discussion, participants across stakeholder groups valued LCP by contrasting it with TCP. This led to the changing roles of students and teachers, as well as teaching and learning activities. However, the focus on the differences between the two pedagogical approaches led to the emerging concern about the “creation of polarity” (E11). This worry was articulated by five trainers, four officials and one teacher. These participants argued that LCP was not about using any single “best” method. For instance, E11 described it as “more of an educational philosophy”. He warned that without well-structured activities, LCP could be “without meaningful contribution to the learner...can be worse than traditional curriculum methods”. Hence, these participants pointed out the need for a balance. Given the

local realities, which are discussed further in Chapter 7, teacher trainers, in particular, believed whole-class teaching or lecturing was a more viable option for learning.

Yet, under the reform pressure, P10 acknowledged that “everyone is trying to be different. Teachers are almost doing the opposite, like group work”. E11 believed teachers were pressurised by the “wrong narrative”, when some officials described CBC as a “dropping” of the knowledge-based curriculum. He elaborated that this unfortunately led to a popular understanding that LCP was to “clean teacher-centred [pedagogy] totally” so that “new people could be manufactured”. However, he argued that such expectation was unproductive as learning for him was a complex process, unlike most machines that have more predictable input-output relations. Hence, E11 believed a more realistic goal would be to make learning gradually “more competence-based”.

On the teaching methods, E12 and E16 underscored that lecturing was not necessarily equivalent to “rote-learning” or “cramming”. E12 held that it was only cramming when lectures were used to “state facts on the board” and hence, he argued one should not “condemn one concept without realising its benefits”. T13 shared a similar need to distinguish a teaching and learning method from how it was used:

Lecturing does not mean it is teacher-centred or lecturer-centred. It depends on how you conduct the lesson, depending on the students or the class, you can use that lecture method, but then you make it learner-centred.

To demonstrate the compatibility of being a “facilitator” when lecturing, E11 described asking questions in a uniform way, while welcoming students to share their own experiences. An official, P6, confirmed this possibility, as for him, it was still LCP even if the “talking” time was “80% teachers, 15% students, then 5% silence”.

Furthermore, by shifting away from TCP, four participants were alarmed by the diminishing attention to content knowledge. E11 stressed that “no single competence is empty of knowledge”. E12 similarly noted “proper content” was the pre-requisite for competencies. This was elaborated upon further by P10, who underscored the complementarity of different components, including low- and higher-order skills. He stated “without knowledge you cannot understand. To be able to explain you must have knowledge first. To analyse you must be able to explain first”. They thus advocated for re-valuing lecturing as a suitable method for building foundational knowledge for students.

5.5 The desired outcomes of education in LCP

Lastly, on the desired outcomes of LCP, participants often made reflections with the broader perceived purposes of education. Four believed regardless of the pedagogical approach, some educational goals remained unchanged. These included enhancing students' opportunities for survival (E4), earning a living (P4), and getting credentials for jobs (P7 and T14). Meanwhile, five teachers mentioned the continuous improvement on knowing. For instance, T4 held that Rwandan education should continue to "fight against ignorance", while T12 added the aim of reducing the illiteracy level.

Two trainers were the only participants who argued that the previous approach of TCP was problematic as it was grounded in colonial history. They pointed out how the prevalence of "rote-learning" and "cramming" were colonial legacies stemming from an intentional suppression of thinking, together with the decontextualised content being imposed. E5 explained the teaching "by rote" was to ensure "we know that theories are only developed from outside Rwanda". E12 strongly condemned such colonial experience as "alienating", when everything African was considered as "wrong", "pagan", "inferior" and "dangerous". For him, colonial education "never interpreted the Rwandan situation", but only "got us stuck in western understanding what Africa is, what Rwanda is". He was disheartened by most African invention having been marginalised, with African states subsequently being "developed by western countries". For him, LCP should empower students to "know the material capacity from our tradition".

While other participants did not discuss the origin of TCP, they were all hopeful that LCP could overcome the perceived limitations of it and fulfill goals identified in CBC. There was a convergence on defining the ideal graduates from LCP, who were generally expected to: (1) apply learning in everyday life; and (2) acquire a holistic combination of knowledge, skills, attitudes and values. Moreover, education was also expected to become an inclusive space for all.

5.5.1 "A person who can only reproduce is knowledgeable but not competent"²²

The major limitation of learning under TCP was typically described as the lack of long-term practicality, such as when P8 said the following:

²² Quotes from E12, interview

You have formulas; you know how to calculate the things. When you go into the world, you don't know how to transfer the knowledge you acquired in school into real life. Now we say the knowledge you have is not usable.

Hence, LCP was expected to enhance students' capacity in the everyday application of knowledge. This was emphasised by the majority (seven officials, ten trainers and 12 teachers). Some key quotes were as follows.

Table 5.4

Selected quotes describing LCP for application of knowledge

Apply knowledge	“Not only knowledge as abstract theories, but also competencies as skills and know-how”. (P2)
	“To expand their minds for the future”. (T9)
	“How do people outside benefit from what you have learnt...you cannot only study but fail in life”. (T11)
	“Skilled people who can do practical activities...become useful persons in the future”. (T7)
	“Don't have to memorise only what studied, they have to think big. They don't have to depend on memorisation, but to make a research... try to put them in practice. (T4)
	“Capable of dealing with challenges in life”. (E8)

This required the cultivation of skills. Apart from “generic competencies”, which were mentioned by the curriculum and some participants, one brought up lifelong learning (E16), while English proficiency, public speaking and presentation skills were highlighted by five teachers. These were deemed as important for “future leaders”, who could “express themselves confidently in front of others” (T9). Thinking skills were also widely discussed. Three participants mentioned innovative thinking, including creativity (T2), “create new ideas” (E5), and to “think beyond the box” (T13). Also, four teachers and three trainers mentioned critical thinking, which helped students to analyse real-life situations. Some quotes regarding this are as follows.

Table 5.5

Selected quotes describing LCP for critical thinking

Critical thinking	“They have this deep thinking that can also be used in their daily life when they are causing real social problems, they do not have to be scared, they have their way to explore their problems”. (E7)
	“Don’t take things for granted but they have to analyse before they come up with the conclusion”. (T11)
	“get to understand the world around me be it socially, politically economically I understand what is going on all over the world because I am able to read I am able to interpret.” (T8)
	“be able to adapt to the changing environment, adapt to the world...to be able to understand issues political, economic, social, cultural issues, and to have a critical understanding and analyzes of those issues.” (E15)

Following his critique of the colonial legacy of decontextualisation, E12 detailed critical reflection had to make education “fit for Banyarwanda²³” so that when graduates contribute to local causes, they could “create an impact with sustainability”. He thus expected the ideal graduate to be as follows:

He or she is able to interpret and apply knowledge locally and contextually in different contexts, in their life. Can have the capacity to link knowledge to real-life. Can translate a given idea and concept into other areas of studies. Not to keep supply and demand only in economics, bring it to geography, bring it to biology, bring it to chemistry. That’s what we call education fit for purpose. (E12)

These individual attributes were also expected to contribute to the economic and social development in the country.

5.5.2 Enhancing competitiveness for economic development

Education for economic development was raised by the majority of officials (seven), alongside some trainers (six) and teachers (seven). These participants similarly pointed to the Rwandan aspiration of becoming a “knowledge economy”. Officials, in particular, pointed out how Rwanda was without natural resources (P10) and hence, education was valued for delivering “skilled personnel and human capital” for all sectors (P9). E5 echoed this view as follows:

²³ This is the Kinyarwanda term referring to the cultural or linguistic group of Rwandan people.

We are landlocked. So, our only resource is human beings. So, developing human beings is really a matter of surviving for our country. People who are educated, who are skilled enough to become the capital for everything for the socio-economic development of the country.

At the local level, two officials, three trainers and two teachers highlighted unemployment as a pressing issue in Rwanda. Two participants pointed out that education had traditionally been perceived as a means to accessing white collar jobs, rather than meeting local needs. E15 elaborated that “no one wants to work in agriculture here and everyone wants office jobs, and yet the realities and the environment are relying much on agriculture.” T4 explained how most students with credentials would “wait for being taken on”, instead of creating their own jobs. Moreover, the previous curriculum was said to be disconnected from the industries. In E11’s words, learning at schools was “in isolation of the practitioners”. Similarly, P3 believed graduates were “not able to do anything” (P3), while P1 pointed out students “start learning only when they join the labour market” (P1). In response, LCP was expected to improve student employability. P5 and T12 gave the same example of chemistry students who would be equipped with skills to work in local industries, such as soap manufacturing.

Beyond the local level, LCP was envisioned as preparing students for the “competitive” world, as mentioned by eight teachers and echoed by three officials and two trainers. P4 elaborated upon this expectation as follows:

Living in a world of competition you cannot compete unless you are competent. We are thinking that learners or citizens by then who learn in teacher-centred mode could not satisfactorily compete on this global market. Then, we said for us to fit in this global market and compete with others across the world, so we need to develop the competencies of our citizens and learners.

As P10 added this required students to have “21st century skills for survival” and teachers shared similarly expectations. T15 wished students to “compete favourably in the labour market on the international scene”. Compared to the past, T5 explained, “in the 21st century, you are doing things on your machine” instead of textbooks. Hence, as knowledge became more accessible, she believed education was less about memorising content and more pertaining to “give them the skills...to go to the world” (T5).

For five teachers, skills could also empower Rwandans with the aspiration to compete with people in developed countries. In the elaboration of “self-independence” as a main attitude in education, T15 explained it was essential for African countries to be free from being “dependent on foreign countries”. He then stated that LCP was a “change in methods, with reference to what the government has done to make sure we are self-independent both socio-economically and politically”. T5 echoed this, by emphasising how development was not about awaiting external assistance, but rather, if “everybody woke up one morning and sweep his or her own area, the whole world will be cleaned in about three minutes”.

5.5.3 “*To be better in all spheres of life*”²⁴

The instrumental value of education in economic terms did not overshadow its social value. There was a strong consensus that competencies were not only about knowledge and skills, but also, values and attitudes. For instance, E13 said the following:

CBC it has three main components, one is about knowledge and understanding, the second is about skills, the third is attitudes and values...so that the learner would fit into society; both living society and working society.

The cultivation of positive values and attitudes, in line with teachers’ perceived roles as presented in Subsection 5.3.3, was discussed by a majority of respondents comprising all teachers, thirteen trainers and seven officials. According to P3, this holistic emphasis distinguished CBC from the previous curriculum, so that students developed “personalities and vision” to “understand your country, to know your place”. For four respondents, students could then help solving problems in local communities, including issues of poverty, gender inequality and early pregnancy, among others, in Rwanda (E9).

This theme featured prominently near to *Kwibuka*²⁵, the 25th commemoration of the 1994 Genocide against the Tutsi. In line with the post-genocide needs for peacebuilding, an official P2 stated that the “know-how-to-be” and “know-how-to-live” were as important as skills as “know-how”. P9 similarly emphasised that LCP targeted “the child holistically; the child as a whole”. The “multi-faceted” nature of education (E11) was echoed by others. E7 defined an “educated” person was not about “having a degree...but also reflecting their attitudes”. It helped students to be “concerned with what he is doing, be responsible” (P1). Two respondents

²⁴ Quotes from E11, interview

believed values and attitudes were powerful in change-making, as these helped to change the lives of students (T2), and to “gain visions to their lives” (E16).

Three participants warned against the narrow education goals that often prioritised quantifiable outcomes, such as assets or job positions. For E11, the neglect of “soft” aspects in STEM education could have detrimental impact, arguing that “science without conscience ruins the heart”. With reference to the surging frequency of mass shootings and reckless driving, E12 believed that often “capitalism in the western world even destroyed the good thing they have acquired”, when individual freedom was “misused as selfishness”. E11 and P2 discussed cases of medical doctors treating patients without respect, developing “bad” smoking habits, or fluent speakers using the language to abuse others. For E11, these cases reflected that the “competence is misdirected” and for him should be devoid of being counted as a competence. He believed competent persons must “better ourselves, but also better the communities...have attributes to become functional, safe, respectful of the surrounding of the people I live with”.

The problem of overlooking moral education was further historicised solemnly by three trainers and two officials. In their view, schooling served a key role in the 1994 Genocide against the Tutsi, particularly with the absence of human values and attitudes. E10 provided an example of dehumanisation propagated in classrooms with this mathematics question: “If you have a classroom whereby you have four Tutsis and then you kill two of them, how many Tutsis will remain?” By promoting various values, P2 wished to maintain peace as follows:

Human people should consider each other as an end and not only as a means. The human being, even if he is different from, like nationalities, colour of skin, religion; all the differences are really benefiting rather than to distinguish, or to build or to cause conflicts.

E12 added in combination with positive values, students with “rational” and “critical” thinking should be able to debunk the “non-sensical” division of Hutu, Tutsi and Twa based on arbitrary physical features.

Furthermore, the holistic education was also underscored for rebuilding communities once torn apart by the divisive ideology. E5 remarked that shared national values were important “to promote a kind of cultural acceptance” through the sentiments of relatedness and belonging. When students knew “who we are, where we come from”, it was envisioned that “we have responsibility to make this society better”. All participating teachers shared a strong

commitment in this regard. By reflecting on “what values do *we* respect? What taboos do *we* want to keep off our society?”, T5 believed all educators had the common commitment “to mould the Rwandans that Rwanda expects”. Hence for her, education was not only to “give the academic information”, but also, to “train them to keep in their minds the values of Banyarwanda”.

5.5.4 “Help each and every learner”²⁵

The last major theme about the ideal outcomes of LCP was on inclusive education. Addressing the rather little focus on students’ individual progress in TCP (see Subsection 5.3.1), all teachers, ten trainers and three officials emphasised that teachers should cater for all students in LCP. Four trainers historicised exclusion in both educational and social settings, notably the ethnic discrimination under *iringaniza*, “the quota system”. Consequently, in line with post-genocide efforts, two respondents used the same phrase to value teachers as changemakers of “not leaving any child behind” (P1 and E14).

Gender equality, which was also listed as a cross-cutting issue, was raised by twelve teachers and a trainer. Gender stereotyping was said to be common previously, with one trainer recalling a teacher telling students “science is not for all, this physics especially don’t talk about it especially for girls” (E10). T12 shared his experience when “only a few” girls chose science in upper secondary education, observing that 95% preferred other combinations, such as history, economics and geography. Under LCP, these teachers mentioned the importance of addressing inequalities in class. For instance, T3 noted he regularly told students “a girl is also able to do mathematics”. T11 similarly stated he often advised students to respect girls, such as asking “are you still the person who abuse the girls around, are you the person fighting, taking away opportunities of girls?” Other participants believed LCP activities, like group work, could promote mixed-gender interaction. An example was the roles assigned on a rotational basis. Regarding which, as T9 explained, “if the group leader is a girl, the secretary should be a boy. T13 was the only participant sceptical of the success of “gender balance” promoted as turn-taking. He believed it did not necessarily entail the appreciation of gender equality when such an ideology was often implicitly embedded in content, especially folktales and stories.

Another focus of inclusion was on students with special educational needs (SEN). Through an iterative process of “mediation, enforcement and extension”, P1 advised teachers to design

²⁵ Quotes from multiple teachers, interviews

level-appropriate activities and visual aids for students. However, E9 critiqued this approach, which he said often led to a reduction of the category of SEN to that of visible types of disability. He stressed the less visible needs of students with autism, hyperactivity, and cognitive as well as socio-behavioural challenges, arguing that all were equally important. Hence, for E9, teachers in LCP needed to be “flexible” in individualising teaching aids, assessment and techniques.

The adjustment for SEN was; however, only discussed briefly by teachers, with only four reported having students with mild visual impairment. This was corroborated by the collected lesson plans. In the box for teachers to list the number of SEN students and the support strategies, only two teachers included “slow” learners and another two indicated “short-sighted” students, while twelve teachers had left the box blank. P1 explained that, traditionally, for students with disabilities, it was “not easy to go to school... because you fear of going there” (P1). T13 explained his school “has no support and cannot cater for students with physical disabilities. Some got enough marks but were put off by the school facilities and this hilly landscape full of stairs”. Thus, most SEN students admitted had conditions which T8 described as “not acute”. Teachers generally believed changing the seating arrangement was already sufficient in these cases, such as to “put them in front” for “special attention to them” (T9). Repetition and an amplification of volume were also believed to have sufficiently supported the students T15 had previously had with mild hearing impairment. Many teachers believed this was typical of “schools of excellence”, where under the merit-based admission system, students who could gain access were mostly from relatively privileged backgrounds.

Two trainers, thus, emphasised that the success of LCP required teachers to have a different mindset on student abilities. E11 critiqued teachers traditionally labelling the majority as “never going to be successful”. Instead, he underscored that “every kid has a unique need” and thus, differentiated learning was necessary for “mainstream” and “non-disabled” students. Similarly, E10 stated teachers should “believe that all learners can learn, believe that his classroom or school environment is a big potential source of teaching resources”. However, among all, only two teachers indicated an appreciation of “slow” learners. T13 critiqued the fixed image on “slow” learner as “a student who cannot be able to do anything in class, or he can do it but in a slow motion”. He stated their struggle was of temporary nature and success was still possible once circumstances changed. T11 was the only teacher specifying that it was often the structure that disadvantaged students. He believed in LCP activities like role play, where students “fight so hard to fulfill that task” with their talents and creativity. He noted that,

“even [class] D can be better than those what you traditionally called ‘bookworms’ in [class] A!”, which would not be the case with traditional examinations.

Other teachers, in contrast, mostly focused on the deficits of “slow” learners, who were typically identified as those “not involved in the work” (T4), “not weak but they fear sometimes” (T10), and “cannot even participate” (T9). Twelve teachers attributed the performance gap to gender, fifteen to English proficiency, and six to socio-economic background. How these factors impacted on LCP is discussed in detail in Chapter 7. Nevertheless, there was still a consensus that teachers would not neglect these students and would help them catch up by offering extra encouragement, further explanation and extra exercises in and outside class hours during “prep” (preparation time). Regarding which, trainer E1 advised teachers to “dedicate much time to them more than those who are advanced”. In T9’s elaboration, he provided “special care” to students, like “I approach those students that have weaknesses in my subject, then I help them individually”. Despite it also being recognised that “talented” or “gifted” students should not be held back (E1 and E4), there was no mention as to how they could be supported.

After detailing the perceptions of LCP in various dimensions, in the next chapter, how teachers translated these understandings into classroom practice is investigated. The activity-based understanding of LCP was most visible during the observed lessons, with teachers making regular endeavours to engage students in activities. The changes were; however, not without complication, as the observations also evidenced participants’ concerns about whether the learning in these activities (as highlighted in Section 5.4) could realistically support the cultivation of the desired competencies.

CHAPTER 6 THE ENACTED “LEARNER-CENTRED” PEDAGOGY IN RWANDAN CLASSROOMS

In the previous chapter, the conceptualisation of “Learner-centred” Pedagogy (LCP) was found to revolve around its rationale, the roles of students and teachers, and the desired outcomes of education. Primarily relying on the classroom observation data with teachers, this chapter explores how they enacted LCP in their classrooms. It begins by highlighting the conditions of pedagogical materials, which had a significant influence on the nature and objectives of lessons. Then, the two major perceptions of LCP, namely the activity-based and content-based understandings, are reported on accordingly. The subject-based variation is also discussed in

terms of LCP activities, feedback style, and the connection of the lessons to real-life. The enacted LCP practice revealed various dilemmas and constraints faced by teachers in classroom teaching and learning, which paved the way for further discussion in chapter 7.

6.1 Pedagogical materials

Resources were seen by the majority of participants as a key barrier to LCP. In the four selected schools, only teachers owned textbooks, teaching guides and laptops on an individual basis. Student textbooks were distributed by the government to be owned and shared by the whole school. Hence, they could only be borrowed temporarily during or after class. Students relied on one notebook per subject in which they had to hand-write their own notes for future reference. Table 6.1 provides an overview of the resources observed.

Table 6.1

Overview of the pedagogical materials at the selected schools

Schools	A	B	C	D
Teacher's book	Available in print and online			
Average class size observed ²⁶ (largest)	44 (52)	40 (43)	46 (50)	41 (52)
Student to textbook ratio ²⁷ , if used in class	7:1	7:1	3:1	1:1
Library	✓	✓	✓	✓
Laboratories	✓	✓	✓	✓
Smart classroom ²⁸	✓ (since September 2019)	✓	✓	✓(since September 2019)
Teacher's computer in classroom	✓	✓	Not observed	Not observed
Projectors in classroom	One portable projector for the school	✓	Not observed	Not observed

It was only the S1 Mathematics and S3 History classes in school D where all the students had books. Since books were seen as valuable property, to avoid any accidental loss, all teachers requested students to return all of them immediately after class. The caution regarding book collection can be heard in this teacher's call:

Count 45! I have 45 here. Count the books now! Where are my books? Make sure you return my books before you go. Why many missing? Who took them? Listen shhhh I am not letting you go before I have the correct number. (T2-Maths S1C 21-06)

²⁶ All four schools had academic streaming and the lowest performing class in the level tended to have the fewest students. The reallocation per term often became a competition among students to get into "better" classes. Hence both the class size and composition changed throughout the academic year.

²⁷ At the time of data collection, the CBC textbooks were still in the process of being delivered to schools. Teachers had to use a combination of two or three publishers to maximise the resources available to students. This number was calculated based on the total number of books bought to class. Yet, when specific tasks or content were assigned, more students had to share a particular version of books.

²⁸ As the observation period ended in September 2019, this means that schools A and D did not have smart classrooms for students during the period of this research. This might have influenced the teaching and learning practices reported in this chapter.

Out of the 68 observed lessons, only 11 (16%) involved printed books for students. In school B, where projectors were available, all 16 lessons had books projected for students. Other lessons relied on content provided by teachers, or students who undertook research before class. Laptops were generally prohibited in-class. Schools A and B teachers shared their concerns over discipline, as some students were caught playing video games and browsing social media. Moreover, an equity concern was also noted by both DoSs. They pointed out that only very few students had laptops, and hence, for fairness, they preferred students not to use them.

While all four schools had “smart classrooms”, teachers shared similar frustration about the large number of malfunctioning laptops awaiting the ministry to arrange repair. At school B, where teachers regularly used laptops in class, the observed lessons were routinely disrupted by unresponsive machines, broken cables, instability of power supply and internet disconnection. Given these challenges, teachers only integrated ICT resources into teaching minimally during the observed lessons, such as for projecting textbooks (School B) and on a single occasion, the playing of a video (School A).

Moreover, even though all four schools had laboratories, experimental opportunities were not always available for O-level students. Only three practical sessions were arranged with science teachers in Schools A, C and D respectively. T12 explained that the priority tended to be given to A-level students since there was no practical examination at O-level. Due to insufficient chemicals, apart from showing online videos, all three teachers demonstrated the experiment for the class, or formed larger groups with as many as fifteen students. In all three sessions observed, students were requested to follow the provided protocols. Notably, in the session at school C, even when materials were sufficient, three pairs of students were not seen touching any test tubes. Apart from the pungent odour of ammonia, T8 pointed to an entrenched culture in which “girls still have a lot of fear, some not interested in STEM subjects like chemistry. Some only want to watch but still fear to touch the chemicals”. Other science teachers added that some especially underprivileged students were afraid of breaking apparatus, as the replacement was unaffordable for them. For instance, a distressing situation was observed when a few beakers were broken in T12’s class (T12-Chem 07-03). When students argued with the teacher that they should be forgiven, he responded that 20 beakers had already been broken in a term. It was “not about money, but the respect for each other and the school”, as T12 explained. They had then agreed that the whole class would need to share the cost for replacement, if any apparatus was broken again. This was believed to be one of the reasons that discouraged students from participating in experiments freely.

Under these material conditions, a key objective of all lessons was to ensure students could reconstruct and memorise the content well. In 52 out of 68 classes observed (76.47%), students copied notes word-for-word for a minimum of 20 minutes, during which most teachers wrote or read aloud every word. The need for handwritten notes resulted in School B — the most resourceful school in terms of having laptops and projectors — being even more intensive in note-copying. Regarding which, once one teacher had started showing the e-book on the screen, the students were told “we have 20 minutes of explanation then you write notes...all of you, you need to have the notes here from this page, so you copy from here. Write now here...” (T16-Bio S1C 21-2). Then, they were also reminded to copy “quickly” and be “faster”. Some faster writers regularly came to the laptop to scroll down gradually, while teacher walked around to check others. In the other schools, class monitors were often asked to assist teachers copying paragraphs onto the blackboard. Student assistance often enabled teachers to monitor multiple classes until the next teacher arrived.

This copying process required a significant amount of time. For instance, for a unit about magnifying instruments and biological drawing, the students had to draw the microscope with all labelled components as follows:

Figure 6.1

Excerpt of Biology textbook for Rwandan schools (Secondary 1, student book, p.42)



Figure 4.5 Light microscope

- | | |
|--|---|
| 1 eyepiece – the lens that you look through; it usually has 10 \times or 15 \times power | 8 condenser – focuses the light onto the slide |
| 2 body tube | 9 light source – bulb or lamp; if the microscope has a mirror, it is used to reflect light from an external light source up through the bottom of the stage |
| 3 nosepiece – holds two or more objective lenses; it is rotated to change power | 10 coarse focusing knob – brings the specimen into focus under a low-power objective lens; it cannot be used with high-power objective lens |
| 4 objective lenses – lenses of different magnification; the shortest lens has the lowest power; the longest lens has the highest power | 11 fine focusing knob – brings the specimen into focus under medium- and high-power objective lenses |
| 5 stage clip – holds the slide in place | 12 light switch – turns the light source on |
| 6 stage – the flat platform where you place your slides; it can be moved left and right to view the slide and up and down to focus | |
| 7 diaphragm – a rotating disk with holes of different sizes; it is used to vary the intensity and size of the cone of light that is projected upwards into the slide | |

Yet as printing was not available, there was no other immediate solution. Despite many students being heard saying “No teacher!”, T16 only repeated the instructions, such as “Yes

quickly you write this first eyepiece, number one eyepiece!” The time spent on LCP activities was often reduced due to such requirements. For instance, when T12 wished to start a discussion by asking students to focus on the “major steps” instead of “cramming”, they refused to engage. Most began yelling, “Wait teacher wait!! We want to copy all” followed by many others echoing “Yes teacher!” (T12-Chem S3B 02-05). As preferred by students, copying thus became the major activity lasting for the whole lesson on four observed occasions. The need of ensuring content was well-recorded in notebooks and well-memorised also influenced the nature of LCP activities. This included beginning the lessons with recalling content (Section 6.2), ensuring all followed the teacher (Section 6.3), and received the same points or answers during the feedback process (Section 6.8).

In the observed lessons, similar activities²⁹ were found across the schools, with teachers broadly including whole-class interaction, group work and feedback processes. Consistent with group work being popularly mentioned by most participants (Chapter 5, Subsection 5.2.2.4), it was used in about two-third of classes observed. The key subject-specific variation was in the presentation after group work. While English and history involved students sharing their ideas and providing lists of points, mathematics and chemistry lessons typically had students writing solutions on the blackboard. I now turn to reporting the details of these observations.

6.2 Whole-class interaction

6.2.1 Revising prior lessons

All lessons similarly began with whole-class interaction. In about 40% of the observed lessons, this lasted for more than 20 minutes. The main focus was on checking students’ memory of prior lessons largely through teacher-led questions. T6 was the only teacher using a game format (T6-Maths S3G 07-03). For instance, teachers asked “who can remind us what we studied last Monday?” (T1); or “who can remind us where we have stopped” (T12; T15). Students were usually instructed to keep their notebooks closed, such as: “Leave the books here! Don’t open the book...I am going to ask you” (T11-History S3A 20-6).

²⁹ The number may be unable to reflect the realities in classroom routines. As stated in Chapter 3, the observation schedule was advised by the relevant teachers. It was not uncommon for teachers to indicate a preference to be observed on another day. For instance, one teacher stated “today we are very busy. We are making notes and I am just giving them the summary. Can you come next week?”. Some school B teachers also suggested that I would be “bored” or “disappointed” when they were “not using LCP”. All teachers in School C gave specific dates of a week in advance, such as when they would “start a new topic”. The leader of School C later requested my finishing observations by a certain date, and reduce their number. Hence, the social desirability had to be factored in.

As student participation was emphasised, teachers similarly did not proceed to new content before multiple ones had contributed audible answers. This was in line with teachers' reported intention to include as many students as possible (Chapter 5, Subsection 5.5.4), instead of only the few who volunteered or were sitting in front. All teachers were seen squeezing through the gaps to reach students at the back, and also choosing specific ones by direct signalling. For instance, “[name] stand up! Tell us what you know from that chapter? (T9-English S3C 26-06). When another teacher did not receive any audible responses, he continued to walk around the classroom urging the students to respond:

Can you tell us any influence they have? Any influence? Yes? There are things we discussed yesterday just a single one! Now, if I ask you and you keep quiet, what does it mean? We just discussed yesterday. [name] stand up! You are very busy writing mathematics! I will take it! I said stand up. Tell us any, don't just sit there were you in class? Huh? What did we talk about religion? Hurry up! I want you to tell us what we did talk about! Quiet! How? Explain your point! (T13-English 18-06 S3A)

According to T13, asking every student was important to ensure none could “dodge” and be “unable to memorise”. Whilst his subject of English places emphasis on communication, he described most students often equating it with “just talking” and thus, did not take it “seriously”.

After recalling the previous lesson, students were usually asked to define or recall key content or concepts. Based on the 367 questions gathered from the observed lessons, factual questions were the most popular (about 71%), followed by open-ended (about 20%), and yes-no ones (about 6%). There was no level-specific pattern identified from the dataset, and some examples were provided as follows.

Table 6.2*Example questions during whole-class interaction*

	Examples
Factual questions	What is hyperbole? (English, S1) What do we call this angle? (Mathematics S1) Who can define chemical reaction? (Chemistry S2) Ghana was colonised by who? (History S3)
Open-ended questions	How can we make it easier to get balanced diet? (English S3) What do you think was the reason for the growth of these cities? (History S2) How can recycling benefit the economy of the country? (Chemistry S2)
Yes-no questions	Are there apples grown in Rwanda? (English S3) Is this a monomial? (Mathematics S2)

The paradox was that, even if open-ended questions were given, often it was the availability of a singular source of reference that made the question close-ended. For instance, when students were asked to provide “factors supporting decolonisation in Ghana”, these were recalled from the complete list of points in the same textbook.

Box 6.1*Student listing points in a history lesson*

- S1: Good leaders
 - S2: Able leaders
 - S3: ...I was not there
 - S4: Ethnic unity
 - T: What about the political parties like UGCC
 - S5: The union
 - S6: Ghana society? Centre?
 - S7: Convention Coast!
 - T: Coast Convention!
 - S8: Union of uncolonised countries
 - S9: The role played by media!
 - S10: Bad colonial system!!
- (T15-History S3C 12-03)

Whilst the students were providing point-form responses, teachers were checking their notebooks to see, if notes were well-written. Apart from naming points accurately, students in

all subjects also responded by filling in the gaps for important content information. For instance, in history all four teachers had asked “Ghana was colonised by?” and then, students across schools responded in unison “Britain!”. If responses were inaudible or very few, teachers usually repeated the phrase until the majority were heard in unison. After the revision, teachers began going through new content, or continued with group discussion or a presentation.

6.2.2 Lecturing new content

In 22 observed lessons (32.4%), teachers used at least 20 minutes to explain content or points. This included the demonstration of steps for solving questions in mathematics and chemistry. In 17 lessons, teachers addressed examination requirements and reminded students of the steps to obtain the highest marks possible. For instance, one repeatedly emphasised “remember to give example, like that way the examiners will give you full marks! Are we together...you are going to perform very well in your examination!” (T5-English S3R 19-02). A history teacher also shared his “nightmare” of getting through volumes of books, and hence, advised students “making good summary” instead of “keeping on gambling” (T11-history S3A 20-06).

While students were listening, they could not be considered as being “passive”. Teachers made tremendous efforts through repetition and questioning to ensure all students were following the lesson, such as by moving around the classroom. For instance, T12 shared the need to identify students “who are not following who are not understanding”. He requested students to recall the content mentioned in a video. Those who were unable to provide any response were punished by having them kneel down. One such exchange took place as follows.

Box 6.2

Students recalling video content in chemistry

S5: I've seen...parts of atoms

T: Like?

S5: Protons, neutrons, electrons

S6: Atoms

T: Tell us more

S6: Smallest part in chemical structure...

T: Shhhhhh! Again?

SB: Neutrons and types of atoms that are partial

T (*interrupts*): What? What partial? Shhhhhh!

(T12-Chem S1C 15-05)

After finding only a few students could recall the given points, T12 then replayed the video and asked them to listen carefully: “atoms are the smallest unit, but also there are sub-parts”.

During teachers’ explanations, the regular checking focused mostly on students’ attention, understanding and memory, rather than reasoning. One or more of the following phrases were commonly used by all teachers:

- Okay?
- Isn’t it?
- Are you getting it?
- Are we together?
- Have you got the point?
- Have you understood?

Students would then reply yes or no before teachers proceeded. In lieu of explicit questions, teachers also regularly raised the tone towards the end of a sentence as a signal to elicit response. For example, T5 introduced the context of the story, and students were following the teacher closely by signaling yes or replying the end word in unison.

Box 6.3

Excerpts of students following a teacher's explanation

T: In this village you know in Nigeria they used bright students and they would build scholarships to encourage them. Are we together?

Ss: Yes

T: And there is the Umufia Progressive Union. This one is a group of elders, elders of Umufia. Are we together?

Ss: Yes

T: These elders of this group they sent intelligent students who were graduates and get scholarships in England. As you read in the story one of the students to England is called Obi-

Ss (*in unison*): Obi!

T: Obi Okonkwo he has been to England, done his study, and come back to Nigeria to home village called Umufia and people are welcoming him back. Ok?

Ss: Yes

(T5-English S3R 19-02)

Apart from “yes”, students also habitually enjoyed filling in the end-gap. This pattern was common, with students repeating the teacher’s last syllable, words, or phrases of the sentence. For example, T16’s students repeated in unison after him for both academic terms like “oxygen”, and non-academic ones like “tomorrow”.

Box 6.4

Excerpts of students filling in end-gaps

T: Water. So, you see water is made up of oxygen and what?

Ss: Hydrogen!

T: Water is made of hydrogen and oxy-?

Ss: Oxygen!

T: And they told us the molecules are made of like water, hydrogen and oxy-

Ss: gen!

T: Carbon that is the biggest....water...and it's like this, this is the carbohydrates so carbohydrates and oxy-?

Ss: oxygen

T: Ok?

Ss: Ok

T: Understand?

Ss: Yes

T: Here are living organisms we will add more tomorrow tomo-?

Ss: tomorrow

(T16-Bio S1B 21-02)

It is important to state that students were not merely making platitudinous remarks of “yes” or repetition. When there was no response, teachers would make clarifications. For instance, T8 noted “it looks like many people are not getting it” and hence, repeated the explanation. In four observed lessons, students were heard saying “No teacher!”, to signal further explanation was required. In addition, student-initiated questions were also common. For instance, students clarified with teachers the steps in an experiment, such as “Why we have to dry the gas?” (T8 Chemistry S3B 22-2). Some might inform teachers of mistakes on the blackboard. For instance, when one student indicated the word “two” were misspelled as “too”, the teacher thanked him and then, changed the spelling (T1-English S1 13-05). In a more interactive discussion, multiple students were raising different questions to the teacher.

Box 6.5

Students raising questions

S1: Why is demonstration not allowed?

T: Is allowed!

S1: You should ask for permission

Ss: Who?

S2: You pay?

T: You have used my services, like if you fail, I am still paid. You don't reduce your fee...(inaudible)

S3: Is warrant the same as lawyer?

S4: Attorney? The same?

T: Yes, the government lawyer?

S5: You committed a crime and you can find a lawyer to help how about if you commit genocide

T: Depending on country...Thomas Sankara...(inaudible)

(T15-History S3A 05-09)

Yet, there was a methodological challenge to capture student questions. Apart from overlapping voices, some students preferred directly interacting with teachers, especially during group work and hence, most scenarios were inaudible. Moreover, teachers rarely shared questions raised by individuals with the class.

6.3 Classroom management

To cover the syllabus within a tight schedule, while allowing for student participation, as promoted in LCP, classroom management was an emerging concern. In all lessons observed, teachers regularly addressed discipline issues, especially during student activities. This was also in line with the expectation on teachers to promote values and attitudes (Chapter 5, Subsection 5.3.3). The most common themes identified are shown in Table 6.3.

Table 6.3

Examples of discipline issues addressed in class

Themes	Description
Cleanliness	Teachers checked whether students were dressed in the full set of uniform. They also requested students to remove rubbish and other objects from the floor.
Responsibilities in completing notes and tasks assigned	Teachers checked whether students had notebooks, stationery, and tasks completed for the subjects.
In-class learning attitudes	Teachers discussed with students the importance of mindset, attitudes and behaviour in learning when they were believed to be off-task. For instance, T13 told students to be active to participate, help classmates, and be competitive, such as “you raise up your hand and answer” instead of “talking non-sense”, because that is “disturbing us” and “wasting your time” (T13-English S3B 28-01).
Punctuality	Teachers asked students to explain the reasons for being late. School A, B and D consistently had at least six students coming later than the teacher. On one occasion, T14 was dismayed when only 14 out of 48 were present, while the others were said to be “moving slowly” from another classroom (T14-Math S3B 05-06).
Examination performance	Teachers expressed dissatisfaction with student performance in tests and questioned if any plans could be made.

In all cases, punishment or follow-up after class was included. Apart from being beaten symbolically with soft objects, students were asked to stand outside, face the wall, kneel down, finish extra exercises, or meet the discipline master after class. While these issues were usually settled in approximately 10 minutes, in one case, T9 used the whole lesson to punish students who were described as “not serious” due to their dwindling examination performance. He called upon each of them to “explain their marks”, and asked if it was due to parents, revision, being “lazy”, or missing timetable beginning with the following:

Stand up! What happened? What’s the problem? Stand up quickly because you cannot continue with this... Explain what happened? Speak loudly! What contributed to this

failure?! You are going to fail...Are you a student? You only want to sit and relax? Also? What is the plan now? Huh? Which measure are you using now? Speak loudly! Huh? what was wrong? Nothing? So, this is your performance now and you accept it? This is your capacity? (T9-English S3B 26-06)

That said, the discipline concern could also be attributed to the generally high noise level with large class sizes. When a student was responding, others were often speaking simultaneously, including the volunteers wishing to be called by indicating “teacher me”. The conversation became inaudible, especially for students sitting far away. Hence, all teachers regularly requested students to stay quiet, and speakers to increase their voice as shown in most transcripts quoted in this chapter. Except in School C, the impact of teachers’ instruction was only short-lived. For instance, together with the environmental noise from outside and students’ chairs scratching the floor, this teacher found it difficult to proceed.

Box 6.6

Excerpts of a teacher indicating noise level

T: Concentration may give different products, but usually, to reduce the accident, if we use dilute by adding water....(*inaudible*) Those ones at the back hey! Listen here for observation...(*inaudible*).

T: Class! Shhhh! Sssssssss³⁰! Listen please. We have here (*inaudible*)...hey can you keep quiet? Hey! Can you keep quiet? Class? Those who are shouting can you keep quiet? You have seen the gas, this MgCl...(*cough, to increase voice again*) you have seen the gas you have seen... (*T increased his voice further and repeat*). CAN YOU PLEASE STOP?

(T12-Chem S2D 07-03)

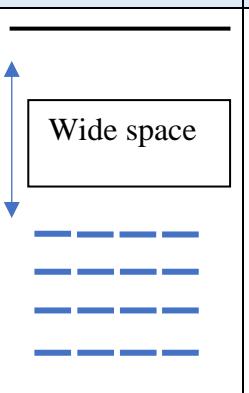
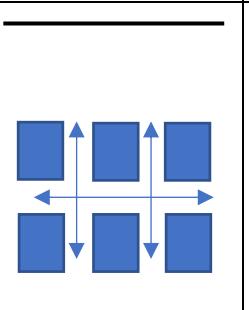
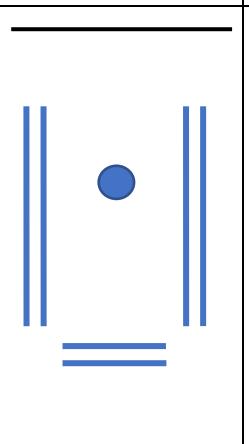
These challenges of LCP in terms of large class size and student responses will be returned to in Chapter 7. This prioritised concern about discipline was further illustrated when teachers discussed their classroom setup for LCP. The row-and-column setting was only preferred by one teacher but it was the default of most classrooms, except for school B, as shown in (1) in Table 6.4. Often, as many as four students were squeezed onto a single bench. Ten and five teachers preferred changing to (2) and (3) respectively for LCP, with the majority indicating

³⁰ This is a transliteration of a sound that is commonly used to signal the call for silence. The meaning is similar to “Shhh” in English.

their rationale was based on classroom management:

Table 6.4

Rationale of classroom setting

	Setting	Number of lessons observed (percentage out of total)	Rationale
(1)		52 (76.5%)	<p>“Can see every face...the whole class in front of me”. (T5)</p> <p>“Not good...it was very hard for a teacher to control them”. (T13)</p> <p>“In the traditional [seating]...you cannot control everyone. One may lie on the desk you cannot see”. (T4)</p>
(2)		42 (61.8%)	<p>“More space to pass here. You can move around the groups without any problems...to verify the capacity of all students or the group”. (T2)</p> <p>“It allows me to pass around...it helps me to move around and interact...it is very easy to manage them”. (T11)</p>
(3)		19 (28%)	<p>“They can talk to each other (T9)</p> <p>“you reach here, look at everyone...it allows me to access everyone, because with columns it is not easy to pass here...to assess each student you see we have only one teacher”. (T10)</p> <p>“Nobody can sleep, because sometimes students can sleep. But if I see you sleeping, maybe I can say eh-huh or another student can say student this one is sleeping!”. (T1)</p>

Teachers’ views reflect that discipline was not only a desired learning outcome of LCP, but also a pre-requisite for learning in the selected Rwandan classrooms. With settings (2) and (3), teachers relished the space they provided, which allowed them to check all students. In terms of actual implementation, (1) was the most common arrangement due to time and spatial constraints. Teachers also worried about students being off-task when they sat together. For

instance, “some of them can work, while others don’t want to” (T3), and “one can create disturbance” (T12). These concerns were corroborated with the observations below of group work.

6.4 Group work

Group work was the most commonly considered as being LCP, which was used in 54 lessons observed (79%). Among those lessons, 11 had students doing “research” in-class, which was most often in history, while 43 were about discussing textbook exercises. Both were consistent with the understanding of LCP that learning comes from students themselves, instead of being “given” by the teacher (see Chapter 5, Subsection 5.2.2.1). Except in the subject English, most assigned questions were found to be content-based and close-ended. In history, as stated Subsection 6.2.1, despite the assigned questions being open-ended, due to the limited materials, the task often became about locating “correct” answers on the given pages. For instance, T3 instructed the following: “page 91, are you there? We are going to identify causes of decolonisation in Africa” (T3-History S3A 03-06). Across subjects, teachers also sometimes asked students to “research” definitions or pronunciation using a dictionary. Regarding which, T5 told students “when you look it up yourself, then you will never forget. This is CBC so you should take part in your education”. Table 6.5 summarises the questions collected from the observed lessons.

Table 6.5

Questions assigned for group discussion

Subjects	Close-ended	Open-ended
English	<ul style="list-style-type: none"> • What are the types of adjective? • Discuss the unknown vocabulary • Name the figurative device • Name the types of nutrients needed by body • Name the colour, materials, patterns of clothes in the pictures 	<ul style="list-style-type: none"> • What can be done to ensure sustainable development of tourism in Rwanda? • With critical analysis, comment on the “Visit Rwanda” policy that uses industries by GoR and Arsenal of England? • Discuss religions in your district • In your community, which religions are practised? • How do the followers of each religion dress? • Nowadays, churches are used as a kind of business. Discuss this with empirical examples. You can be for or against • Discuss the contribution of religion in the socio-economic development of our country
History	(*Teachers and students often referred to the same textbook)	<ul style="list-style-type: none"> • The impact of long distance trade • The influence of the American Revolution on the history of the world • The causes of decolonisation in Kenya and Ghana • Colonial reform and its consequences in African societies • The political economic, social consequences of colonial reforms of African societies • How did Britain become an enemy of France?
Mathematics	<ul style="list-style-type: none"> • Define simultaneous linear equation • Define linear equation • Solve the following equations 	<ul style="list-style-type: none"> • What do you understand by the term “inequalities”? • Give examples of a linear equation, inequalities and simultaneous linear equations
Chemistry	<ul style="list-style-type: none"> • The product if you mix these substances • Name the apparatus • Calculate the number of moles • Balance the equation 	<ul style="list-style-type: none"> • Describe how poor disposal of waste affects a) soil, b) air and c) water • Describe briefly the steps that can be taken to ensure proper waste management in school

As the English subject had more open questions relevant to personal experience, compared to the other three subjects, especially mathematics, students were generally observed to be more eager to contribute ideas.

There was a strong convergence on teachers' role during group discussion, regardless of schools and subjects. Classroom management was observed to be the key concern, as teachers typically walked around the classroom to ensure students worked on the assigned tasks. This was followed by them interacting with specific groups or individual students. Teacher activities during group work are summarised in Table 6.6 and will be discussed further below.

Table 6.6

Teachers' roles during group work

Target	Teacher activity	Description
Whole class	Managing discipline	Requesting students to stay on-task and lower the volume
	Repeating instructions	Repeating the task or questions and logistic arrangements
	Timekeeping	Counting down until the end of the task
Group or individuals	Checking answers	Taking individual or group's notebooks to check answers
	Responding to a specific group or student	Teachers interacting with students to explain content or to respond to questions raised by them
No facilitation	Preparing another task	Copying the questions or notes onto the blackboard for the next task
	Off-task or not in class	Filling in administrative documents or not in the classroom

6.4.1 Managing discipline

Discipline remained the top concern when teachers had to manage seven to ten groups, each with six to eight students. The group formation often took more than 10 minutes. Apart from the limited physical space, teachers in all mixed-gender schools regularly checked whether gender balance was achieved. For instance, T11 would ask students to swap group membership to "make sure of gender balance! We are a mixed school and we need to mix". As the discussion

began, the high noise level was an inevitable dilemma. Teachers frequently asked students to reduce volume, such as in the following:

Try now! Try! Discuss! Keep your noise down! Not write, you discuss, discuss the question after I will choose one of you to do the question, quickly! Discuss it now quickly, discuss, don't shout! (T2-Math 03-06 S1D)

Apart from noise level, a common observation was that some students had seemingly minimal interaction. Some were seen writing separately, despite sitting in a group. In one extreme case, three students returned to their original seats, with the group leader left alone writing answers (T3-History S3A 22-05). During the observation period, there was only one captured stance of a teacher addressing this phenomenon to the class. T10 noted that, “it is group work not individual! You are supposed to ask your friends!” (T10-Maths S3B 07-02). However, with mixed-ability grouping, it was usually the case that individual progress was varied. Unlike in history, where students could only identify answers from the shared book, in the other three subjects, they could copy the questions and work individually.

Off-task was commonly observed for students sitting far away from teachers, who were seen completing homework for other subjects, browsing social media on laptops, or sleeping. In T4 and T9’s classes, students were often seen starting to talk when teachers approached and tapped them on their shoulders. Students talking or looking busy often became an important proxy for them as being on-task. For instance, T11 said “this group, you are not talking, I am not hearing! Don’t look for the answers from the other groups”. He then requested students to “go to the group discuss, not look through the window! You don’t talk? You use signs? You are doing what?” (T11-History S3B 07/02). When teachers could not identify any visible cue of students working on-task, they typically emphasised that they should be “serious”, such as in the following:

Why your pen down? I am serious, you? You are relaxing. Not only to sit if you are serious. You have problems you raise your hand... You think I’m joking again, but if I catch you, you pick your bag and you move down there to see the DoS. (T10-Maths S3C 02/05)

Others might question specific students, such as in the following: “you finish writing all your words? What? Where is your book? You are just sitting and waiting for the answers?” (T13-English S3A 18-06).

6.4.2. Repeating instruction

Repeating instruction was another common role enacted by teachers. During group work, nearly all were heard reminding students to ask questions, such as “if you have any problem call me” (T6) and “you raise your hand, if there is any question” (T2). They also encouraged students to interact with each other, such as, “if you have any questions, you can ask your peers” (T11). Other captured instructions during the observation period were mostly about logistics. Some students were confused or were unable to hear the instructions. Hence, teachers regularly repeated the assigned question by reading it aloud, giving the page number of the exercise, and where to write the answers. For instance, T9 repeated the allocation of questions to the groups after finding the majority of students were not talking:

Remember you have Q1, here you have Q2, this is Q3, Q4 there. You take a sheet of paper to highlight some ideas to respond, then you discuss. Stop writing! You discuss! Write after! Take a sheet of paper and you highlight three ideas, write some ideas of some Q! Just 10 minutes, discuss! (T9-English S3B 26-06)

6.4.3 Timekeeping

Furthermore, teachers kept time regularly. To reserve sufficient time for presentation and feedback, they often stated the urgency of discussing “quickly” and to “hurry up”. In three instances, students were only given two minutes. Many of the teachers would start to count down, which became an external motivation for students to work on the questions more efficiently. This was a typical reminder for students: “I am coming to verify! In five minutes, in five minutes I am coming...I want to see that question completely done; well done, well done. Not only done a half” (T10). After asking students once “how far have you gone?”, T6 began counting down: “seven minutes! seven minutes...four minutes left, four minutes...two minutes! Have you finished? Now present your findings, please show us what have you found.” (T6-S3G 07-03). In this instance, T6 was simultaneously preparing the presentation materials, and did not interact with any particular group.

However, during the observation period, no teacher was heard specifying the rationale or meaning of discussion beyond “talking” and “sharing ideas”. It was uncertain whether students understood how discussion was different from interaction in the everyday sense, and what discussion implied when most questions remained close-ended. As teachers had to take care of a large number of students, it was difficult to monitor the content or quality of the discussion

in all groups. Group work, thus, relied heavily on students' own discipline and willingness to engage with peers in the given task.

6.4.4 Checking answers

Towards the end of discussion, if time allowed, teachers would check the answers in students' notebooks. Further interactions with one or more students in a group tended to be brief and only occasional. When teachers were simultaneously called by many students and could only respond to a few, this left many calling them continuously and had to wait for an extensive period to receive input. For instance, during an exercise about identifying poetic devices, most students managed to find the answers on a previous page. In about two minutes, more than 10 students shout out "Teacher! Teacher here! Teacher finished!". With the teacher remaining occupied, some students began walking around, playing with their hoodie, changing seats, laughing or finishing homework for other subjects (T1-English S1 17-06). Among all the lessons observed, only one mathematics teacher was heard instructing students on the process required for reaching the answer. He reminded students of the steps taught, as in the following:

You start with no.1, put x equals 0, y equals 0... Where is the equation of line you get from here, is it an equation? But there is this sign for inequality...on the same graph you solve number 2, on the same graph. Why you do another one, what I told you?? Same graph! You draw here. Why you don't extend the other line, extend the line! (T10 S3C 02-05)

Other teachers generally provided feedback after students had completed their presentation.

Lastly, there were some instances when teachers were not seen checking any student progress. They instead capitalised on the time to prepare for other tasks, including making materials and copying questions onto the blackboard (T4, T5, T14, T15). On a few occasions, T4 and T16 were seen filling in pedagogical documents for inspection, while students were discussing. There were also rare cases when teachers assigned group work spontaneously when they had to leave the classroom unexpectedly, such as to meet school leaders. Students were then expected to work independently.

6.5 Presentation

Following the group work was the compulsory presentation. This was where teachers enacted the articulated focus on involving every student (see Chapter 5, Subsection 5.5.4). On 34

occasions (63%), teachers emphasised the presenters would be chosen randomly, such as “I will choose randomly a student in a group to explain, so you pay attention! It can be you!” (T10-Maths S3B 07-02). This was similarly explained by all teachers to be an external motivation for all students to participate. They also noted the importance of giving equal opportunities to “slow” learners. Hence, the volunteers were not usually among the first to be chosen. Gender balance was explicitly mentioned as a principle of choosing presenters in 14 observed lessons (26%). For instance, after a few boys responded, T1 asked “what about girls? No girls presented?”. Notably, this also caused some boys to feel that this was unfair. For instance, when about seven boys who had their hands up were not chosen, a few were saying “gender balance”, to teachers while one indicated “boy also! gender balance pick a boy! I am a boy!” (T14-Maths S1C 29-01).

With the desire to involve as many students as possible, teachers T3, T5, T8 and T9 were seen requesting all groups to present. In one instance, the teacher stated, “those people who have not participated, who have not spoken … I want everyone to put your sentence there” otherwise all are “not allowed to go for lunch” (T5-English S3G 11-03). Based on my observation notes, other less common strategies included a few instances of asking students to nominate peers (T7 and T11), the incentive of extra marks being given for correct answers (T12, T14, T15 and T16), and a lucky draw (T6). Notably, the number of students presenting was often prioritised over the depth of their responses. Yet, in all observed lessons, there were fewer than 15 students contributing, which was approximately one-third of the class.

6.5.1 Competing responses

On student response, inaudibility was a typical issue observed across schools and subjects, especially when the chosen student was not a volunteer. Most commonly teachers, and occasionally students, did explicitly express difficulties in hearing responses. This issue was amplified during the long rainy season from March to May, when heavy rain hit the corrugated iron roof. Students were usually requested to speak with an increased volume, such as “you need to speak louder; we need everybody to hear” (T6). Similarly, T15 requested students to shout “louder louder! You are a leader in the future!” (T15). A typical exchange was exemplified as follows:

Box 6.7

Excerpt of a teacher requesting students to speak louder

S: The first point in our group... European...national were not...

T: Can you increase the voice?

S: (*inaudible*)

T: Can you increase your voice, so someone over there can hear your point?

S: European...that's the first point

T: The first point is?

S: European nationals were found in Ethiopia

T: Can you come again what you are saying? in Ethiopia what?

(T7-History S3G 19-02)

Sometimes, the chosen students were seemingly unsure about the answers, as signalled by their cross-checking with peers in front of them. When teachers were time-conscious and requested students to act “quickly”, similar to the situations described in Section 6.3, this frequently led to volunteers³¹ enthusiastically signalling the wish to be called upon next, by saying “Teacher me, me teacher!”, while snapping their fingers. If the student already being asked showed further hesitation or made a mistake, teachers most commonly picked another. While School C tended to have relatively audible responses, competing responses still frequently led to teachers indicating a difficulty in hearing, with the following being an example of this.

Box 6.8

Excerpt of frequent overlapping

S1: NaOCl is bleach

T: So you say it is what? One word?

Ss: (*talking together, inaudible*)

T: One word! One word for [name]!

S1: Bleaching agent

T: Bleaching agent! Does the bleaching agent contain chlorine?

Ss: No

T: But that's what she said, it is bleaching because it contains chlorine. Is it what we say?

S1: (*inaudible*)

³¹ There was insufficient data to observe the patterns of volunteers. However, in most audible cases, boys were seemingly more likely to volunteer. The influence of gender dynamics on LCP will be discussed in Chapter 7.

T: How? How does it make...?

S2: NaOCl

S3: Bleaching agent!

S4: Contains chlorine

S5: Makes dye colourless

Ss: Teacher!!!

T: So, we are going to look at the bleaching actions...can you please listen, because I am not hearing! You are making noise!

(T8-Chem S3G 14-03)

The overlapping became challenging when teachers wanted not only answers in unison, but also, to seek further elaboration.

6.5.2 Presenting to the teacher

Another feature observed in the presentation was that students habitually responded to the teachers only. This was another reason for inaudibility in that student's voice usually faded away as they faced the teacher only, but not the class. While some teachers then came very close to the presenter, to avoid neglecting others, some regularly checked with students, such as "You got it? Can you repeat what she is saying?" (T8-Chem S3B 22-2). Still, usually the same issue about students only facing teachers was seen to persist, as T8 then noted, "no wait you face them and tell us again! You look at them, not me. You are saying what?"

Similar situations were observed in group presentations across subjects. Students usually took turns to read aloud scripted points to the teacher, while a group member copied the full paragraph on the blackboard. Students usually provided one point per person or responded to different assigned questions. The probes and the approval to proceed were predominantly given by teachers, especially for the more technical questions. For instance, students were asked to present the steps for the preparation of ammonia. While two held the diagram they drew (similar to the following), one person presented and another wrote the chemical equations on blackboard.

Figure 6.2

Excerpt of Chemistry textbook for Rwandan schools (secondary 3, student book, p.73)

When nitrogen and hydrogen react under the conditions mentioned above, only about 10% of ammonia is formed. The reaction is exothermic.

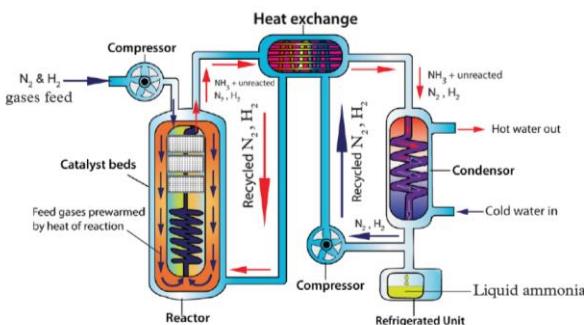
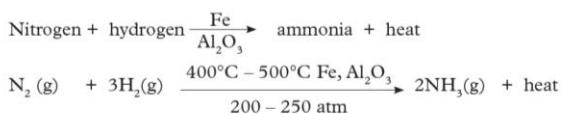


Fig 2.12: The Haber process

The students then read aloud the equation and conditions, as listed in the textbook, to the teacher, as follows.

Box 6.9

Excerpt from a student presentation

S1: The materials...manufacture ammonia there are a few conditions. The first condition is to mix nitrogen and hydrogen in the ratio of one to three.

S2: Nitrogen and hydrogen one by three in there, and also, we need pressure between 200 and 250 atm at between 400 and 500 degrees. Finally, we need to add Fe and Al₂O₃ to... (*inaudible*)...to take place. The nitrogen...plus oxygen...plus hydrogen...as we have said there is iron...Al₂O₃, so it gives out ammonia and heat...(*inaudible*)

(T8-Chem S3B 22-2)

In another lesson, T3 asked the students to give “factors for decolonisation for Ghana...we have number 1?” Since teachers and students referred to the same textbook, the wording of points and details were also shared. While the teacher copied 13 key factors onto the blackboard (left), students were mostly reading aloud the descriptions in the presentation (right).

Box 6.10

Excerpt of History textbook for Rwandan schools (Secondary 3, student book, p.101)

<ol style="list-style-type: none">1. Ethnic unity2. Historical background of Ghana3. A small manageable population4. Influence of elites5. A stable economy6. Influence of WWII7. Independence of India8. The 1941 Atlantic Charter9. Formation of political parties10. The role of media in Africa11. The role played by Kwame Nkrumah12. The influence of UNO13. Colonial exploitation of resources <p>(T3-History S3A 17-06)</p>	<p><i>Causes of Decolonisation in Africa with Case Studies of Ghana and Kenya</i></p> <p>Influence of Second the World War A big number of Ghanaians who participated in the war on the side of Britain found life hard upon coming back. They formed political parties and taught people western democracy. This increased nationalistic feelings among Ghanaians and led to early struggles for independence and decolonisation.</p> <p>The formation of political parties The early formation of political parties like Convention Peoples Party (CPP) United Gold Coast Convention (UGCC) in Ghana facilitated mobilisation and sensitisation on the need for independence which led to early decolonisation from the grass roots.</p> <p>Role of the press and mass media The press and media also favoured early independence of Ghana. Newspapers like Accra Evening News, Cape Coast, and Daily Mail helped to spread awareness to the people in the country side and equally exerted pressure on the British to decolonise Ghana.</p> <p>The role played by Kwame Nkrumah Kwame Nkrumah was a gifted speaker with good organisational ability, and friendly to people from all walks of life. He gave new life to the politics of Ghana and mobilised people which led to early independence and decolonisation of Ghana.</p> <p>British rule was introduced in some places by force. Africans hated the British oppressive institutions such as the army, police, and prisons. Some of the African leaders for example, Dr Kwame Nkrumah were detained without trial. The rural peasants were not happy with their situation and hence joined Nkrumah's struggle for independence.</p>
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For the more open-ended questions, the probes were still largely given by teachers. This required them to have sophisticated probing techniques, while keeping the rest of the class engaged. Box 6.10 shows a presentation about how to promote tourism in Rwanda. When the points were not directly available in textbooks, which was most common during English, most students tended to provide brief answers.

Box 6.11

Excerpt about teacher probing

S1: Sustainable government policy, simplify visa and passport

T: How does that help?

S1: (*inaudible*)

S2: Treating animals better

T: How?

S2: Import more animals

T: Can you give examples? What animals do we need? Any examples?

S2: Lion

S3: Construct hotels used by tourists

S4: More construction sites

S5: Maintaining Rwandan culture

T: What Rwandan culture? What is the implication for now?

S: (*inaudible*)

T (repeating S answer): Yes tourists visit us to see culture not there in other countries. We need a conducive environment too, to visit different things or culture.

(T9-English S3B 21-06)

Among all the observed lessons, only nine (13%) involved capturing extensive responses from students. These all took place at school C, a girls' school, where students also tended to raise up their hands and wait to be called. This environment enabled most to make fuller answers uninterrupted. Notably, one student, who was described by teachers as "smart", was able to reframe points in her own words. For instance, she presented the reasons why Ethiopia was not colonised, and later, also helped to paraphrase and clarify other students' points:

From my discussion, I think let's take the example of Rwanda when they came to colonise Rwanda, they just came up with division. The reason why we are saying unity contributed to the reason why Ethiopia was not colonised is because, for example, when you take Rwanda, our country, it was the one colonised it convince them they came up with division. But for the Ethiopians, there was unity among them, so they were together and they didn't trust the Europeans more than their fellow citizens. Are you convinced? (T7-History S3G 19-02)

Her teachers converged on her English proficiency and family background being the most influential in supporting her participation (to be discussed further in Chapter 7). Since English was the official MOI, reluctance was expressed among teachers in using Kinyarwanda. Only in ten observed classes did teachers explicitly permit code-switching, while in four observed lessons, teachers stated clearly that all discussion must be in English.

6.6 Writing on the blackboard

While verbal presentations were more common in English and history, science and mathematics teachers tended to invite students to write answers on blackboard, as was the case in 38 observed lessons (55.9%). Similar to presentation, teachers first gave chances to students

who did not volunteer. As students copied steps or solutions from their book line by line onto the blackboard, teachers most commonly continued checking others' notes, responding to individual questions, or preparing notes until the student had finished writing. While all teachers regularly encouraged students to complement the writing by verbal explanation, such as "can you talk?" (T14), this was generally confined to their reading aloud the steps or equations as written, such as in the following.

Box 6.12

Student writing down an equation

S wrote " $4x = 2x + 20$ "

T: Remember to look at the class! You explain!! Hey, you have to explain. Quickly!

S: $4x$ equals to...(inaudible)

T: Please students! Listen don't shout! Look here and hear the explanation on the blackboard. Now! What?

(T2-Maths S1C 22-05)

During the observation period, no student was heard providing an explanation for their thinking or reasoning process. When some were uncertain about their answers, they sometimes checked with others sitting in front of them, while the enthusiastic volunteers continued to snap their fingers, indicating that they wished to be called next. Teachers across subjects converged on choosing another student to redo the question, especially when the answer was deemed "incorrect" (see below Subsection 6.7.2).

When students were reading the steps to the teacher only, often they were standing side by side at the blackboard facing away from the class. This reduced audibility as well as the visibility for others to see the writing. In all observed lessons, only one teacher, T10, was seen closely following and interfered with students' writing process. Once, when a mistake was spotted, he stopped the student and instructed the correct steps:

No, here don't use the other method of changing to base 10. You use the first method, not changing into base 10. That one we will use it later! Leave that one till later. Yes, you change the base by doing...yes this is 1 plus...this one you take it as...what did we always say? (T10-Maths S3B 07-02)

The focus was to follow the steps taught previously or shown in the textbook.

6.7 Feedback

After a student presentation, the feedback process in the observed lessons generally had a key outcome of creating revision notes. This was mostly due to the unavailability of resources (see Section 6.1). Based on the observations, it appeared that having same answers seemed to be prioritised over differences. Regarding which, T7 explained that teachers' role was to "harmonise" and "validate" the points. Hence, he reminded students to "have common points" by frequently asking "can we agree on the point? Can you record it?" T6 similarly emphasised that notes could be taken whenever "I have confirmed they are right". However, only "correct" answers were recorded. No teachers were heard asking students to take notes about "incorrect" answers, or personal experience commonly shared during English lessons. These could arguably be valuable learning resources. Moreover, the evaluation criteria of answers were rarely discussed in the observed lessons. While no students were seen disputing a teacher's decision, it remained possible for further exchange to take place after class, but this was not captured during the study's observations.

6.7.1 Correct response

Among all 68 lessons, in about three quarters, teachers directly affirmed that the answers were correct. Five teachers regularly put ticks on student answers on the blackboard. For instance, this was how T6 indicated the answer was "correct" when a group was presented the question, "What is simultaneous linear equation?".

Box 6.13

Teacher indicating the correct answer

S: A simultaneous linear equation is a system of two linear equations of two unknowns, x and y
T: True. You get it?
Ss: Yes
(T6-Maths S3G 07-03)

Yet, if the "correct" answer was deemed inaudible, some teachers would repeat it and occasionally verified again whether all students had got it. This style was observed across teachers and subjects, but most commonly in science and mathematics. In about one third of lessons, teachers gave further details to complement the brief points made by students. For

instance, the teacher cited below provided further reasons for using a catalyst in reactions after “triple bond” was recognised as the correct answer.

Box 6.14

Excerpt of a teacher’s explanation

S: Triple bond

T: The triple bond for nitrogen it makes it very difficult to break this triple bond N≡N. And you need a lot of energy. because it is inactive, it is less reactive, it makes the reaction very strong. And remember this is industrial, we need large amount in a very short time. Isn’t it?

Ss: Yes

(T8-Chem S3B 22-2)

In all observed history and English lessons in addition to a few chemistry ones about waste management, teachers ensured students reported the complete list of points, often as listed in the textbook, accurately. Teachers converged on signalling the correctness, using words like “yes”, “very good”, “continue” or “next”, “ok another one”. With time concerns, most teachers wrote the desired point directly onto the blackboard and then, moved on to the next one. For instance, after a student had provided a rather inaudible answer of “patriotism”, the teacher asked “Can you make it as a point? Let us call it the growth of African nationalism, Next?” (T7-History S3A 07-03). However, elaboration was not always given.

For the more open-ended questions, often there was no specific evaluation given on the student responses. In an instance when T15 asked them to “generate different definitions of democracy”, he only stated the answers were “very true”, but there was no further explanation for, and comparison amongst the responses.

Box 6.15

Excerpt of a teacher asking for different definitions for democracy

S1: Process of citizens given the rights from government

S2: Government of people for the people

T: We are getting our own definition! Not cram work from your notes

S3: Citizens allowed to give ideas and participation in activities

T: Good observation

S4: Citizens free to choose and vote

S5: People have different types of freedom

S6: Process in which democracy is held in the country

T: Explain? Ok are we together? Your definitions are very true.

(T15-History S3A 05-09)

Similarly in an English group presentation about “narrate a story of what you saw there or observe in Rwanda”, the teacher only probed one of the students briefly.

Box 6.16

Excerpt of evaluating group presentation

S1: I went to the King's Palace in Nyanza where we had to remove shoes to enter...I visited different rooms on the left there was a sitting room...then, there was also a room for storing milk. Outside the house we saw where the king cooked the meal, and only virgin women were to serve, then also cows with long horns

T: Why no shoes? Shoes were not there at that time?

S1: Well, it's the culture teacher

T: Ok, next one, where did you go?

S2: Lake Kivu. Tourist activities there, people getting what to eat, many transport to send people, and then, many fish species.

(T9-English S3B 21-06)

Then, T9 asked the other group members to present, who all provided brief responses similar to that of the second student (S2).

Only in about half of the lessons observed, were teachers seen asking probing questions after a “correct” answer had been given. The probing was mostly through providing examples, elaboration, and a few instances of personal opinion being expressed. However, probing strategies consistently had limited success. Students were rarely heard responding to “why” or “how” questions unless the explanation was already listed in textbooks or notebooks. This was shown in this example when T13 discussed social problems with the students.

Box 6.17

Excerpt of a teacher probing

S: Richness

T: Is that positive or negative?

S: Negative

T: How is it negative?

Ss: (*no response*)

(T13-English S3A 18-06)

At the end of a presentation, in about one-third of the observed lessons teachers had asked the class to show appreciation to the specific presenter or to all the students in the group. For instance, “thank you so much! Give flowers to yourself” (T8). Snapping and clapping were also routinely used. However, except for T11, who on a few occasions said “thank you for trying”, students whose responses were considered as “incorrect” were rarely seen being given appreciation.

6.7.2 Incorrect response

For answers deemed unsatisfactory during the observation period, no teacher directly stated the answer was “wrong”. Rather, the most common action taken was to ask other students to judge, as observed in approximately two thirds of the lessons. Otherwise, teachers directly provided answers, and on six occasions, they asked students to do “research”. For instance, T14 asked students to find out the pronunciation of the mathematical symbol Δ (T14-Maths S1C 29-01). Probing was not observed during the selected lessons for responses deemed “incorrect” and the feedback seemed to focus more on the answer itself, rather than the explanation for the thinking process behind the response.

To invite another student to make judgements, most teachers regularly used “is it true?” among specific cues, including “you are to judge their progress here” (T5), “are you getting what she is saying?” (T8), “can we consider that as a point? Are you convinced?” (T7) and “do you agree on this?” (T3). These were, however, rarely used when the answers were deemed fully “correct”. Here is an example from one class.

Box 6.18

Excerpt of student responses

S1: A cream cashmere dress

T: Is it true?

Ss: No

T (*inviting another student*): Yes?

S2: A white satin dress

T: Very good. Next picture?

(T1-English S1C 06-06)

The teacher was not seen engaging further with the student who provided an “incorrect” answer during the lesson. To probe for a different answer, teachers might ask “who has another answer?” (T1), “let us hear another one” (T5), or call on specific students to answer, such as “you come and tell us” (T16). When students believed answers were “incorrect”, some would also begin to indicate their wish to be called next, by saying “Teacher me teacher!”.

While student participation was appreciated, there was a seemingly extreme case when T5 left the whole feedback process to students by choosing a student (S1 below) to provide feedback to others about the use of tense. However, she only asked for an “example?”, after which others wrote words on the blackboard in simple past tense, such as “visited” and “went”. No explanation was given for when this tense was used. Then, a student raised a question about “what is the difference between present perfect continuous and past continuous tense” as in the following scenario:

Box 6.19

Excerpt of student-led feedback

S3: He was teaching and he has been teaching

S4: Like the time gap?

Ss: (*inaudible*)

T: These teachers they are wonderful!

S4: Past perfect is when something happened!

S2: Distant to the past! Like “she had gone to the market”

Ss: (*inaudible*)

S1: She had gone

T: Think again girl, think again! I have brought my stick, you look at the blackboard and contribute?

S1: Example?

S5: She had been doing her homework

(T5-English S3G 11-03)

While many students generated sentences using different tenses, no systematic explanation was given at the end by the teacher to clarify the differences between the tenses. In the audience, at least seven students were seen lying on their desk.

Collecting “correct” points tended to take relatively longer in history lessons. T11’s response was typical of teachers inviting different students to contribute until the full list of points was compiled:

Ok, anyone has different ideas? Any other person with different ideas? Any other? You? Huh [name]? Can you please come and explain to us? Don’t shy away, you have the idea! Can [name] you try?” (T11-History S2C 07-02)

Occasionally, there were no further responses after calling various students. Other than providing the answers, teachers’ strategy was rather limited to that of repeating the original question. For instance, T3 asked students the following:

How according to you? This is in the decolonisation in general and especially the cause of decolonisation in Ghana. How did the independence of India lead to the independence in Ghana? But according to you, which means were used? According to you! (T3-History S3A 17-06)

As the nature of questions required historical information based on reference materials or personal experiences, this was among the possible reasons why the added emphasis of “according to you” had not resulted in any student response. Notably, on one occasion when a point came from students’ internet research, the teacher decided not to record it on the blackboard. A student said, “the ascendance of power” could be a factor of decolonisation in Kenya, because “Britain they started using the machines after the industrial revolution... they know they don’t have to use slaves from Africa or even colonising them” (T7-History S3R 04-03). After approaching the group for a brief clarification, T7 asked if others had done “any research about it”. Then, as no students provided further information, T7 decided “we shall try to learn about it. Ok, first, don’t record it, we have to first of all make sure how true or how

important the point is”. He then asked other groups for responses. It was not known whether any follow-up took place after this observed lesson.

In chemistry and mathematics, teachers invited other students to revisit the question until a “correct” answer was obtained. Yet, neither teachers nor students explained which step contained a mistake. Often the steps showed a logical thinking process in line with the topic, while the mistake was due to a slip in basic arithmetic operations, like addition or subtraction. For instance, in a scenario, the unknown x was found correctly and the student was only uncertain about how to prove the value by substitution. Yet, the teacher continued choosing another student, while indicating “please if you find a mistake on the blackboard don’t erase it, afterwards we will correct it” (T2-Maths S1C 22-05). Nevertheless, all the students erased all steps and reattempted the question from the beginning. While some found different values of x , no student managed to prove its value by substitution. After repeating similar instruction for a few times, and after consecutive attempts from seven students, the teacher then demonstrated the steps, but did not explain the issues that the students had encountered.

Similarly, in the scenario below, it was uncertain whether students understood the reasons for an answer being correct or incorrect. They were asked to determine the vowel length in the given words “smooth” and “woolen”, respectively.

Box 6.20

Students guessing answers

S1: S-moo-th teacher it sounds long

S2: Woolen, short! Short!

S3: (*inaudible*)

T: Have you failed? We are waiting for you?? Another one, you?

S3: Don’t know!

(T13-English S3A 14-05)

When the third student indicated uncertainty, the teacher repeated the question and explained that words like “food”, “spoon” and “scoop” all had long vowels. When other students continued responding “long” and “short”, no explanation was given for how vowel length was determined in English, as it might not always be reflected in the orthographic representation. That said, the answer could not be determined simply by guessing. While the phonological

rules could have been taught previously, the teacher did not make reference to them or guide students to work out the mechanism.

In the only instance when a mathematics teacher did diagnose the “incorrect” answer made by a group, the focus was not on academic knowledge. As other groups shared that their “success” was attributed to the group leader, who had determined the correct answers after everyone had worked individually, the teacher emphasised to a particular group that “leadership is very important, you should have first of all chosen a leader to decide” (T6-Maths S2R 25-2). He remarked the group had two out of ten marks as they had “failed to decide” and only “copied what is wrong”. Yet there was no further engagement with the students to check why and where the mistake was made mathematically. This seemed to suggest the value of learning from mistakes was delegitimised.

6.8 “Facilitators” in linking content to real-life

Apart from the common enactment of LCP as activities, it was also occasionally enacted in the content. This featured in approximately half of the lessons observed, when teachers discussed everyday application. Table 6.7 provides an overview of content covered. Some themes also reflected the focus on cross-cutting issues, values and attitudes, which were all deemed to be cherished dimensions of LCP (see Chapter 5).

Table 6.7

Topics discussed in lessons that were connected to real-life

Themes related to everyday life observed in class		
Subjects	Textbook content	Teachers’ own examples
English	<ul style="list-style-type: none"> • Careers (S3-unit 1) • Diet and health (S3-unit 4) • Religion, culture and arts (S3-unit 6) • Tourism and the environment in Rwanda (S3-unit 7) 	<p>School A:</p> <ul style="list-style-type: none"> • Promoting tourism in Kigali through the Arsenal campaign and Rwandair • Religious education through attending church school and the dining hall • Gender equality at the Rwandan parliament <p>School B:</p> <ul style="list-style-type: none"> • Building relationships with different types of love • Traditional cure for malaria • Formation of stereotypes • Respecting different jobs, career, gender

Table 6.7 (continued)

Themes related to everyday life observed in class		
Subjects	Textbook content	Teachers' own examples
Mathematics	(not observed)	<p>School B:</p> <ul style="list-style-type: none"> • Number sets and membership <p>School C:</p> <ul style="list-style-type: none"> • Fractions for sharing food • Coordinates for identifying location
Chemistry	<ul style="list-style-type: none"> • Effective ways of waste management (S2-unit 4) • Industrial preparation of chemicals (various units) • The use of chlorine (S3-unit 4) 	(not observed)
History	<ul style="list-style-type: none"> • Consequence of 1994 Genocide against the Tutsi (S3-unit 2) • Causes of decolonisation in Africa, with case studies of Ghana and Kenya (S3-unit 5) • National and international human rights instruments and the protection of human rights (S3-unit 10) 	<p>School A:</p> <ul style="list-style-type: none"> • Visiting genocide memorial sites • Nationalism in Congo-Rwanda and UN activities in Sudan • “Miss Rwanda” competition • Mass shooting events in the US and by Al-Shabaab in Kenya <p>School B:</p> <ul style="list-style-type: none"> • Rights to eat at schools and hold demonstrations <p>School C:</p> <ul style="list-style-type: none"> • Cultural activities as continuities from ancient Rwanda

Due to time constraints, most classes ended with presentations, teachers' feedback or copying notes. Unless included as textbook chapters, the application of topics tended to be covered briefly during the final minutes. For instance, all four teachers at school C asked students to explain the importance of a given topic in daily life, such as the following:

Why do you think we have to prepare this ammonia in industry? Why is this preparing important? What is the purpose, why is it supposed to be prepared in the lab or why do we even study it? So, ammonia is useful? How do you relate what is asked to the Rwanda situation? Just relate to that. That is very important, so I want us to have the ideas why do we have to study, is it necessary or what can you do in real-life experience especially in Rwanda? (T8-Chem S3B 22-2)

Students sometimes contributed brief examples, such as fractions in mathematics, as being useful for sharing food, and calculating profit in saving (T6-Maths S3B 18-02). Despite teachers stressing the importance of real-life application in Chapter 5, chemistry and mathematics teachers indicated most of their topics were theoretical or abstract. The textbook examples were also not always contextualised. For instance, in chemistry, the list about uses of chlorine included points about swimming pools, refrigerators and air conditioning units, which were not necessarily relatable for Rwandan students, particularly those in rural areas:

Figure 6.3

Excerpt of Chemistry textbook for Rwandan schools (Secondary 3, student book, p.138)

Chlorine has a wide range of uses in our daily lives. Some of the uses of chlorine are outlined below.

1. It is used in the treatment of water and sewage systems. Low concentration of chlorine is used in killing micro-organisms in domestic water supplies. A higher concentration is used for sterilising swimming pool water. Chlorine kills germs.
2. Manufacture of domestic bleaches which consist mainly of sodium hypochlorite like ‘Jik’ and other bleaching agents used in cotton and paper industries.
3. Manufacture of hydrochloric acid.
4. Manufacture of weed killers such as sodium chlorate. Sodium chlorate is also used to make explosives, fireworks, matches and medicines such as throat lozenges. It is also used in the production of oxygen.
5. Manufacture of germicides, fungicides and pesticides such as DDT.
6. Manufacture of chlorofluorocarbons (CFC’s) used to manufacture aerosol propellants, and used in refrigerators as ‘freon’ and air conditioning units due to their low boiling points.
7. Compounds of chlorine such as vinylchloride are used in the manufacture of plastics (PVC) used in making plastic water pipes, chairs, tables among other.
8. In the manufacture of trichloromethane (chlorofluoros) used as an anaesthetic.
9. Manufacture of cleaning solvents such as carbon tetrachloride.
10. Manufacture of fluid used in fire extinguishers such as pyrene.

When English and history contained some examples closer to students' lived realities, their engagement was often higher. T13, T9 and T11 had thoughtful sharing with students using observation from local communities and trendy topics. Students were seen paying attention to their teachers, as indicated by the many responses of laughter or “yes”, in unison, unlike during group work, when teachers frequently had to motivate students. For instance, T9 discussed the controversial “Visit Rwanda” sponsorship deal with Arsenal Football Club in England. As he posed a question about “why support Arsenal when most people are starving”, many students competed to discuss the benefits for Rwanda almost immediately, without the teacher calling for participation.

Box 6.21

Students commenting on “Visit Rwanda”

T: How do we benefit from that tourism may be in terms of economics?

S1: They come and see our cultures

S2: Arsenal gave training contracts to improve Rwandan national team!

T: Youth training, yes now how do they benefit? How to get money now?

S3: Skills!

S4: More money to improve security, foreign countries help improve our country

T: What is your view on the policy?

S5: Should continue!

S6: No, criticise them, they have mental problem!

(T9-English S3B 21-06)

There were more students who contributed points simultaneously, and yet, unfortunately, it was difficult to capture all the contributions as audible answers.

Lastly, despite the cultivation of positive attitudes and values in LCP being emphasised by nearly all the participants in Chapter 5, the practice was only found in about one-tenth of the observed classes. Some English and history teachers were seen incorporating the discussion of moral values into the content. For instance, T1 asked students not only to read aloud their stories, but also, to share the “educational messages”. The themes included avoiding jealousy, helping each other with kindness, environmental protection, peace and society, and sacrifice for the country. Similarly, T5 not only discussed comprehension questions about Chinua Achebe’s *No Longer at Ease*. For she stressed that students must also learn the “value of humanism” by explaining the meanings in greetings among other cultural practices, which reflected traditional wisdom. For instance, when friends “hug you for real until you feel the pain”, it was to know that someone was hungry, after which potatoes and beans would be generously given for hospitality (T5-English S3R 19-02). Building on the story, she wished students could remember one’s home or origin and the importance of “giving back”. The exchange went as follows.

Box 6.22

Teacher discussing moral values

T: So, what lesson have you learnt?

S1: I notice that we should always use what we have to develop

T: And after developing it?

S2: Should share it

T: Should share it, so when you finish university, your future should you go abroad? Go and work for that money, but invest that money You go to India, to England, but the money should manage to come to?

Ss: Rwanda

T: Ok, let us hear another one

S3: The thing I learnt from this passage is I should give back

T: We are educated to give back, isn't it?

Ss: Yes

T: One you owe your parents should exist do I lie?

Ss: No

T: We are educated to serve do you understand that? And that's what we are to do. We are to serve, not for white-collar jobs. Some of you going to school expecting to come home after university to simply be in offices and be quiet.

(T5-English S3R 19-02)

Other recurring themes were all related to maintaining social relationships, including respecting differences along the lines of gender, religion, background and abilities. For instance, T13 advised students of the importance of having a “critical mindset” when he taught the word “stereotype”. He emphasised students “should not accept whatever comes” and simply “go with it”. In addressing the competitive mindset, he also requested students not only to focus on innovation and hardworking. Beyond those qualities, he encouraged students with a similar passion to work together, during which they could cultivate the culture of constructive criticism. He then gave an example of how students should not look down upon the “weak” ones:

If someone makes a mistake, instead of laughing at them, you should correct him or her. Clear? Is it ok? Because you come from different lives, different background, where you study from in primary (school), the background you have is totally different. So, make sure you help each other...don't look at the performance you are the first position and then that one is the last you feel happy...after national exams, if your friends are

taken into those schools, you call them “third world school”, you don’t feel happy. Either you help those students to come back here, but if you feel you better let him or her go to that school not coming back, this is not good.

This was in line with the holistic nature of competencies envisioned in CBC, regarding which T13 articulated as, “if you are competent and if you don’t cooperate, it means that competence is gone”.

The exploration of classrooms practice showed that teachers, to a varying degree, had enacted LCP in terms of learning activities and content. Dilemmas had emerged regarding large class sizes, where teacher-led classroom management was often a pre-requisite for learning so as to avoid competing responses. The limited resources had particularly conditioned the nature of LCP activities, especially research and presentation. The need for copying notes might be among the reasons why the collection of “correct” answers and the full list of points were prioritised over exploring different ideas and the reasoning process. In the next chapter, further discussion will focus on participants’ reflection of LCP practice in Rwandan education. A wide range of factors were deemed influential in the extent to which LCP was implemented.

CHAPTER 7 THE CHALLENGES OF USING “LEARNER-CENTRED” PEDAGOGY IN RWANDA

“Education is the efforts of everybody” – P10

As key mediators of reform, teachers’ perception and enactment of “Learner-centred” Pedagogy (LCP) in Rwanda were not only based on their own decisions. Primarily based on the interview data conducted with teachers, teacher trainers and government officials, this chapter discusses participants’ perceived challenges regarding the reform. Notably, all participants were generally dissatisfied with the implementation of LCP in their classrooms. This was exemplified by the very few descriptions of the “best” use of LCP, with three trainers even commented it “does not exist” (E10) or was “not seen at all” (E12). Participants, instead, went in-depth into various areas of challenges of the reform. While all the identified factors were covered by all stakeholder groups, the major dissonance was about whose responsibility it was to ensure LCP and learning took place. Considering these contextual factors relevant to teaching and learning in Rwanda will help in seeing beyond a reductionist view that focuses solely on teachers, at the expense of wider systemic issues.

7.1 Teacher factors

7.1.1 Teacher understanding

The most commonly raised issue, by fourteen trainers six officials and five teachers, was that there was a strong need to improve teachers’ understanding of LCP and their skillset for its implementation. The greatest challenge was said to be in grasping the concept of competencies, and how learning activities could be aligned with them. For instance, E3 believed teachers were “confused” and “not sure about what they are doing”. Teachers also openly acknowledged their confusion, especially in incorporating cross-cutting issues and competencies into lessons. A typical response was as follows: “we don’t understand well the purpose of CBC...how CBC works, how CBC must be implemented” (T4). Furthermore, for older teachers, like T5, LCP relied on technology and yet, as she pointed out, she was “not conversant with these machines” and could hardly provide guidance to students during the process.

Under the activity-based understanding of LCP, one major concern was about the over-popularity of group work. This was critiqued by all teacher trainers, five officials and three teachers. E11 called it an “obsession”, observing how many local actors “mention group work like they are breathing or praying” and it was “not synonymous to active learning”. A few

inspectors echoed this observation. For instance, P4 noted, “by putting students in groups they think they are done”. E13 added that teachers often only assigned a few minutes for discussion, which was insufficient for learning to take place. The same was also noted by three teachers. They opined that group work had become “a habit” (T8) or taken as the “only method” for student involvement (T12). Three trainers, in particular, worried that teachers had understood “facilitators” as to being reduce their responsibilities, saying such as having to “back off” (E11), and “leave students to work freely” (E6). E12 observed that many teachers only had a “superficial” understanding of LCP based on the methods so the chosen activity did not necessarily connect to the ideal competencies, as he elaborated below:

Group work for what? You have not taught, you have not directed, so what are they going to discuss?...Because group work is just for students to share experiences, now you have sent them to groups without any connectivity to the content to their real life, what are they going to discuss?

Observing the nature of student responses, five trainers critiqued the tasks given for group discussion, which they said were unstimulating. Moreover, in line with my observations (Chapter 6, Section 6.4), these trainers stated most teachers gave close-ended questions to students. E5 commented that most students were “doing nothing”, because “when you put students in a group to do something everyone can do alone, it’s a waste of time. You waste time, and it’s annoying students”. This was similarly observed by E2, when group work was about drilling mathematic questions of a similar type:

The book is there, solutions are there! So, what are they doing? To read and just read it for you? Ah, those who try they start by teaching they give examples then ‘in groups’... only numbers; figures change!

Two participants thus wished teachers could design tasks in line with teaching objectives, and “not every time group work” (P6). E15 emphasised that “active” has different faces and “talking is only a part”. He believed that students could also benefit from having more self-reflection time:

Some need more time to think. When you ask a challenging question, that reasoning also takes time. So, they need to think and come back later, not just talk whatever right away.

Teacher training was consequently valued by nearly all participants for enhancing teachers' understanding of and developing their skills for delivering LCP (Section 7.2).

7.1.2 Teacher motivation

"We cannot talk about the effectiveness of LCP or CBC without that enthusiasm from teachers" – (E15)

Apart from understanding, motivation was a crucial issue highlighted by teacher trainers (eight), also being echoed by teachers (five) and officials (three). They believed that there was a general lack of motivation among teachers for adapting to LCP. Two participants similarly noted teachers having a positive mindset was important to enable their learning of LCP since "teaching is also learning" (P2), and "a good learner is a good teacher" (T13). LCP was also described as being demanding as it required changes beyond methods. It also required teachers having creativity (E2), accepting criticism as a friend of learners (E5), and understanding each student's needs (E12). These trainers highlighted overloaded and demotivated teachers were more likely to remain in the "comfort zone" (E7), such as "go and lecture" (E11) or "just give them summary and notes" (E12). In contrast, "self-energising" teachers, as E6 believed, were more willing to spend time to "overcome the extra burden". Four trainers worried about student benefit when many teachers they supervised had little concern about teaching. Their change towards LCP was about "not to trouble with REB and examination results" (E9), or to "make life easy" (E7). In E2's words, many "pretend to be learner-centred teachers...just want to finish the syllabus...they don't even think about LCP". When he tried to provide suggestions to teachers on LCP approaches, he noted most were rather uninterested, "they are like, 'ah I am teaching, as simple as teaching'". E11 also noted that many were still "stuck in the blame game".

That said, ten trainers joined by three officials argued that it was inappropriate to blame teachers given the lack of support. All teachers indicated their motivation was inevitably affected by poor living conditions. Among all 16 interviewed teachers, only seven indicated becoming teachers was their preference for a career. Amongst the most enthusiastic teachers, T11 stated "I was born to be a teacher...it's god's calling", and T5 said, "this is a call that I had in my life... It is in me". In contrast, four admitted that they would have joined other professions, if their examination results had been better. DoS1, who supervised teacher internees, observed that most were already demotivated during the practicum. He wished they could "handle things as Rwandan citizens...they need that seriousness, they need planning, and

also, just to give this work value and time.” Ten teachers shared they had found the work enjoyable later, when students performed well in national examinations and expressed appreciation for teachers as having given them life-long inspiration. For instance, T7 pointed out “What I taught them is bringing a change to their life; that is what makes me happy”.

The key barriers to good motivation were identified as being heavy workload, low salary and minimal welfare benefits. Considering the working conditions in teaching, T13 said “I may not call it a profession”, while E12 explained that teaching was usually seen as being a “secondary profession”. T4 added the following:

No one would say I will become a teacher...teachers are people who are not respected... if someone wants to say that he or she has improved his or her life, he or she says, ‘now my life is better because I can even pay two or three teachers’. Can you imagine that? So we are the neglected people in our society. So, for that reason we are not being proud of being called teacher.

As E2 noted, other jobs with better payment could allow employees to “leave all materials there” (where they worked) after working hours, but not teachers. As teachers in LCP were required to be “updated for everything” (T2), in T8’s words, teaching was “consuming all my time...even at the weekend I am supposed to be marking. I can’t do anything outside that. There is a lot of work to do”. To overcome pressing financial hardship, all interviewed trainers and teachers indicated they regularly took part in multiple income-generating activities. This was crucial for those residing in Kigali, where the living cost and school fees are higher than in other regions.

All trainers converged on the observation that the best performers in national exams usually refrained from choosing education. Regarding which, E8 pointed out the following:

Young people now, they don’t want to join the teaching profession, because of the way they see teachers live; how they are considered in our society. How they are not well-paid, and this will attack the profession.

The student perception on the teaching profession was clearly illustrated in class when T13 discussed occupations. While many students enthusiastically indicated their aspiration to become doctors, engineers, pilots, or entrepreneurs, none wanted to become teachers. When T13 asked “why not?”, many were seen laughing, saying such things as “no no teacher!” or wagging their fingers, citing “no money” as the key reason for this (T13-English S3B 28-01).

A few trainers worried that this trend had led to teachers being stigmatised as “low” performers, which discouraged highly qualified and passionate students from joining the profession, which could have negative impact on the quality of teaching. As E11 put it, teaching is “seriously not everyone’s business. It’s not a ‘garbage in, garbage out’ situation, because that’s abusive. But what you put in is what you get out”. E11 used the idiomatic phrase of “milking a bull” to describe teachers’ response to LCP and added, “you don’t ask so much from a teacher, who has not been provided with enough support.” Similarly, E12 underscored that they were not “selfish” in thinking about own welfare, but rather, “teachers need to be empowered, very critically”, as currently “we have asked them to do what we did not give them”.

Participants, especially teacher trainers, thus believed teacher motivation was even more of a pressing issue than teacher training. An official also confirmed most teachers were “not very committed, because they are still thinking about their own survival. It is not easy to think of somebody’s welfare when yours is not assured” (P3). E12 mentioned, “politicians want to dodge that”, but teachers’ salaries were a serious concern:

Teachers are given not only a poor life, but miserable life. They can never be happy, let alone helping learners to have that kind of independent life...who wants to help people’s children when yours cannot afford a good school?

For two trainers, LCP at “schools of excellence” was sometimes better due to the extra top-up salary for teachers from parents’ contribution. While awaiting a salary increment, E12 wished that teachers could still try to help students learn:

We have to love our profession. We have to mind our students we are teaching. These are students, Rwandans, you are Rwandans. These are human beings you are a human being, so despite traditional problems of low salaries big classes bla bla bla try to give what you can.

Similarly, T13 advised students to have respect for all occupations and a self-less attitude in providing service to the nation.

7.2 Teacher training

To account for teachers’ understanding and motivation, all teachers, nearly all trainers (fourteen) and officials (six) discussed various issues about teacher training. P10 noted that, while pre-service teachers were there “to mould”, in-service teachers could be described as having “firm roots”, where “the shape is fixed; the branches are just climbing. And if you move

them from the standing position, they will lose balance, especially if you surprise them”. Recognising multiple issues in teacher training, participants discussed their impact on the LCP reform as follows.

7.2.1 “Who trains the trainers?”³²

While teacher trainers were supposed to help teachers, eleven of them along with three officials and three teachers expressed doubts on trainers’ own understanding and skills of using LCP. For instance, officials questioned “how much do they know” (P6), and “where do they learn about CBC?” (P10). T10 believed “even trainers themselves they have not mastered what they have to give us”. T15 believed some officials, who he referred to as “the so-called SEO³³, the so-called DEO³⁴...were chosen by favouritism”. T15 observed that they were “not competent” due to having little teaching experience, and hence, often only “saying CBC, CBC” without considering the practicalities. Sharing a recent experience, DoS2 was disappointed that “CBC was equated with group work” in training and he added that, “you don’t find the trainer confident to explain to you what it is”. He also commented that LCP was explained as a “good pedagogy from Europe, from Singapore, which can bring this, this, this, but they don’t tell you here how you do it”. E11 and P10 similarly explained that most trainers, officials and teachers were graduates of the previous system. P10, thus, believed except for the few who had international experience, “here, people have no foundations, from the top level to the ground level”.

Four trainers echoed the above critique concerning trainers’ knowledge on LCP. One elaborated that trainers were also “told to change”, just like the teachers, as “REB was in charge of the review of the curriculum, but there was no major consultation with the College of Education from the very beginning (E10). E12 added the meagre resources at UR-CE meant most trainers had extremely limited professional development opportunities, and in fact, an annual budget of just 7 million RWF (approximately GBP5,000) had been made available for conferences and workshops. He explained the situation further:

The majority don’t understand it. The way we teach our student teachers is not yet up to standard, because lecturers do not know how to conduct it. This is new to them in

³² Quotes from T13, interview

³³ Sector Education Officer (SEO)

³⁴ District Education Officer (DEO)

Rwanda...sometimes the lecturers themselves they know what to give, but the how part of it they may not know it very well, because they are not facilitated. (E12)

Four participants highlighted the quality of trainers was crucial given teachers' use of LCP was often an imitation of the teaching style of their own teachers. For instance, as E3 explained, "LCP is not something which can start at school", but instead teachers were "exercising the similar ways they are taught at the College of Education". P6 mentioned "it is very difficult to teach in the way you have never experienced". He added that even universities lacked resources and hence, teachers did not comprehend how students could be "facilitated" in practice. E12, thus, underscored that trainers had to lead changes, because "what we give and how we give it impacts on the teachers" and any misunderstanding would also "go down to teachers". Similarly, a teacher believed more training should begin at UR-CE:

Before you go to train [teachers], you should first train yourselves. So, when you go there you are equipped with what you are required to know. So there must be a continuous training, training of trainers, and then training of trainees. (T13)

On supporting trainers with adaptation to LCP, an official recommended strengthening local research capacity and that, "policy practices they should be informed by research findings" (P4). However, E13 said there was "no room" for sharing study outcomes or peer learning at UR-CE. He described "the leaders were not having such kind of opportunity to learn in this way, they may not be able to initiate these practices".

7.2.2 The gap between LCP theories and practice

For in-service training, only three teachers believed LCP was practised as the teaching approach during it. Such an evaluation was made largely based on the activities. For instance, T4 believed LCP was used, because there was "presentation after group work, and they made conclusion and corrections". T7 likewise described how "we were given time to talk, then we gather points together, then we made harmonisation of the points".

In contrast, nearly all teachers (fifteen) along with five trainers and two officials typically described LCP as being "given" just theoretically. P6 observed many CPD programmes were superficial and lacking in detail, such as having "not much time to show in the real classroom" as practice. As he explained, "they still do lectures by cramming the theoretical part". From T11's experience, training was "all about lecturing". He added that there was only a handout given with listed teaching methods, such as research, discovery, group work, and discussion.

He noted the trainers were only “telling you this is how you are supposed to do it. But you could not do it practically there...then you ask, ok, yes so how is discovery done?” Three teachers held that, rather than teaching, training often focused more on the administrative side, such as filling out the scheme of work or lesson plans (T4; T10; T15). T13 contended that, if LCP continued without well-trained teachers, this would amount to “killing education”, since those student teachers “have no skills about the curriculum and yet, they are the ones who are supposed to come and implement it”.

At UR-CE Rukara campus, trainers also critiqued that pre-service teachers were mostly taught LCP as a theory, rather than being instructed on how it can be put into practice. With the mega-class sizes commonly ranging from 200 to 500 student teachers, E4 described her teaching was “more teacher-centred than learner-centred”. She described her lectures as:

I give the theories...I explain everything to you even those methodologies I cannot use there. I said I cannot do this by experience.

Trainers also noted there were almost no opportunities to demonstrate key LCP principles in practice. For instance, E11 reported that assignments that trained higher-order thinking skills, such as portfolios and extended writing, were not given, because he had 300 students on a course. He explained, if “everyone writes something so concrete”, such as four pages per person, it would be impossible for him as the only marker to provide personalised feedback on the total of 1,200 pages. E7 shared that most colleagues resorted to giving close-ended questions to be automatically graded via Moodle. Both these trainers admitted these practices were unreflective of LCP principles. Beyond the lectures, E13 added there was no “bridge” between trainers and student teachers so that they could experience how individual needs could be met as per LCP principles. He noted that, with English as MOI, many students “may not understand and yet they just sit there; they don’t come to me and ask”.

As the programme only had a one-off practicum towards the end, five trainers noted it was inadequate for student teachers to be able to understand LCP. E16 described the practicum as being “too late” and “we don’t really have the capacity to do follow-up”. E8 added, “there was no chance of going and seeing whether this particular internee had improved or not”. E12 believed that any misunderstanding among teachers was because “they were not mentored and coached before CBC came into existence...to understand learner-centredness and not only [learner-centred] methods”. For him, most teachers could only articulate LCP through curriculum terminology, but not “the how part of it”.

That said, E11 emphasised it was still important to recognise that most trainers attempted their best to help teachers learn about LCP in the short period time they were given. For future improvements, two trainers wanted to reintroduce the tutorial system. For them, teacher trainees could benefit from in-depth interactions and practising LCP techniques enabled by smaller group sizes (E7). Three trainers added LCP should also be demonstrated in real classrooms. Moreover, E12 advised the development of pedagogical methods suitable for big class sizes, which could still be considered as LCP, such as situating learning in students' localities, as discussed in Chapter 5.

7.2.3 CPD arrangements

Further concerns were raised on the varying training schedule across districts and schools. Two officials pointed out more coordination among international partners was required, for as P3 noted, "some come with this, others coming with that". While all four selected schools had weekly meetings, thirteen teachers and two DoSs believed the training frequency was insufficient. For instance, T15 described training as "still lacking surely", while T1 explained that "the timetable is always full!" According to teachers' self-reported number of training sessions attended in the first two terms in 2019, 11 had only received one in-school session, while the other five had been to two or above. Only three interviewed teachers had been invited for external training. T7 appreciated the Aegis Trust for teaching instruction on values and attitudes. Noting that "history is connected to the culture and progress of the nation", he cherished the training for deepening his understanding of "culture, emancipation and historical issues of the nation". In addition, T1 had attended "Mobile Art for Peace" during which she practised a series of role plays showing "how people can live in harmony, can solve conflicts, can work as a team" and "trust his or her friends" (T1). They were expected to cascade the training result to other teachers.

These participants then all highlighted the need for continuous training. For instance, T5 said, "if you rely on just one training, the world will leave you behind". T12 emphasised the need for constant adaption: "what we learnt in university is not enough...one method can be best in this situation, when you apply it to another one it is not working". Accordingly, E13 underscored that school leaders must understand the "critical" importance of CPD, so that "you will not say we don't have one hour for CPD per week and yet, a teacher is in a classroom from 8am to 5pm, just more time in class without a good result". Both DoSs interviewed indicated training was their priority. DoS1 noted it was important to make "self-evaluations". Apart from

being a district trainer himself, he also invited experienced trainers to support teachers during term breaks. However, T8 critiqued that even if training took place, it was often “compressed” into a weekend and teachers could hardly reflect on teaching issues under fatigue.

While awaiting external opportunities, six trainers, two teachers and an official recommended peer learning as another useful strategy to overcome challenges. P4 believed most teachers “stick on” some approaches not because of lacking willingness to change, but rather, they required inspirational examples. Hence, peer sharing was valued for helping teachers to “learn from good practice...different experiences in teaching strategies” (E5) and for “building collegial relations” to encourage further sharing (E6). DoS1 mentioned that he always encouraged teachers to “sit together and share”, saying as follows:

‘I have seen this, if I am the one, I could have done this one, so how do you see it?’
They have appreciated what they have done; they have given a piece of advice on how they could do better so that they can be fully learner-centred.

However, eleven teachers and six trainers doubted whether teachers would share among peers and cascade training. It was described as a “weak” model by E5 that was only in place due to the limited budget. He pointed out as teachers shared information with others, the quality “becomes loose”. Other teachers worried about the loss of information from cascaded training. As T1 worried there was “wrong information different from the way the ones who teach them”, whilst T8 stated that teachers might end up “not on the same page”. Furthermore, two trainers reiterated most teachers were already overloaded. E2 noted even that, teachers “really willing to support peers, they don’t have time”. E8 believed sharing was only effective when teachers “training their colleagues are really rewarded”. Expressing real financial concerns (as discussed in Subsection 7.1.2), he said “we don’t have time to do things for free”.

7.3 Policy

To contextualise the enacted LCP in classrooms (Chapter 6), various policy-related concerns were also raised about the system. After raising issues regarding the nature of the policy change, participants also discussed the influence of examinations and English as the MOI on LCP.

7.3.1 Top-down policy changes

The frequent “top-down” policy changes were vividly critiqued by five trainers, as joined by four teachers and two officials. As E12 noted, “policy fluctuation” was common in the system

and these participants recalled the overnight switch of medium of instruction (MOI) from French to English in 2008/9. When LCP was officialised, E12 believed there was a “rush” in writing the curriculum by “listening to the donors”, and thus, he wished such “misfire” and the “weakness” would be acknowledged:

The problem is they keep on rationalising that everything is OK, then we shall be setting a time bomb...students will continue receiving isolated content, if not insufficient, at the end will be caught into the issue of politics.

E11 remarked that teachers, however, “cannot articulate” their opinion, because they were “under pressure” and hence, usually were “just fitting into” the public narrative stated by the Ministry. Only two government officials were vocal about the insufficient time to prepare for change. For instance, P10 stated “everything is done in a hurry, and people do not grasp the understanding”.

Teachers shared in detail the uncertainties they faced with constant changes, especially regarding pedagogical documents, which were targeted by inspectors. In T14’s words, “I try to know all these lesson plans, then next year they use this [new one]!” Similarly, T15 shared he was “lacking information...not knowing, not prepared...I was not even given a single textbook”. The missing space for reflection was also pointed out by two teachers. T15 complained that there was a scarcity of feasibility studies on LCP locally and hence, he was uncertain “whether it really works” for Rwanda. T12 added there was still no “common understanding” of LCP, as teachers had been asked to change without the full range of explanations, including:

What are the advantages of this, or what are the disadvantages, when do we use this?...how are students gaining? How is it facilitating students? How is it facilitating for teachers? What is the best way of using it?

That said, E11 warned that any “blame game” should be avoided. While he similarly critiqued the limited preparation for LCP, he wished evaluators would be mindful of the country’s tragic past and hence, there was no “privilege” for piloting as “we are under pressure to have so much in so little time...after the 1994 Genocide and all that everything is trial and error. Claiming “we’ve done our best given the circumstances”, he elaborated further:

For things that worked we wondered why others didn’t work. If you ask me, who do you blame? I could possibly have done the same thing. So, I am not going to blame

anybody. It was an urgency, like sometimes when you are sick, you have to take the medicine not because you know the right medicine, but you say let me try these together.

7.3.2 Examinations

Another policy aspect concerned the high-stakes examinations, which were critiqued by seven teachers, five trainers and an official for being largely unchanged. Since the examination was noted to be a key determinant of students' future, these teachers stressed that suitable teaching methods had to secure their excellent performance. For instance, T16 asserted that students must "perform well that's the first". T12 explained that teachers tended to have the greatest responsibility, since "if they don't pass, it is you to explain why...the blame comes to you". Hence, despite LCP having various ideals of meeting student needs and interests, the examination requirement often rendered the pursuit of those impossible. In T14's words "they tell us students are now who decide what to learn, but I said it is not possible!".

There was a consensus on LCP being unsuitable to cover the heavy syllabus, which was typically described as "too much" (T3). Three teachers contended that most LCP activities were "wasting time". T12 explained that student presentations took many lessons and yet, only one or few key points were covered, which amounted to virtually "nothing". This was further related to students' demotivation and their limited capacity to conduct research (to be discussed in Section 7.5). T13 added that teachers were expected to complete three or four units in a term, and yet, with large class sizes (to be discussed in Subsection 7.4.2), for "each and every student to be part of the lesson, you don't have that time".

While no officials articulated how teachers could resolve the tensions between learning goals and examination-related concerns, six teachers and six trainers held that teachers' direct explanation was preferred over student activities at times. In E5's words, "a method that can allow him to finish the curriculum so that's the lecture". While T12 similarly highlighted most teachers, "if they see they will not finish (the syllabus), they use teacher-centred methods because they need results". However, he added they "cannot reveal that secret, but they teach the whole unit without involving students", because this would be seen as violating official requirements. These participants noted the alternative was to distribute the LCP activities thinly among students. For instance, E14 explained that "every student quickly gets some little time to work and present what he or she has done. Just rushing!". Likewise, T12 pointed out "at least you should let everyone talk, even though it can be two sentences". However, one teacher

believed it was unhelpful to ask students to “hurry up”, as he noted for learning “you need them to present their work and how they got that work done” (T8).

Moreover, teachers mentioned there were still limited changes in the examination questions. For seven teachers, the change under LCP was on the use of Bloom’s Taxonomy that went beyond recalling facts like asking students to “list” or “outline”. This helped to vary the difficulties of questions “from the easiest to the more difficult” (T4). Four history teachers provided more concrete examples used to discourage students from “cramming”. These included “to identify push and pull factors” (T11); “to select, produce, recognise, describe, distinguish, and apply” (T3). Similarly, T15 mentioned his routine use of terms like “assess, how far, to what extent”. However, five trainers observed that often answers to teachers’ questions were already listed in textbooks regardless of what verbs were used in the question. They believed that many teachers still requested the recalling of factual information, such as definitions.

The trainers believed more applied questions were important for achieving the goals of LCP. For instance, E13 recommended science teachers collecting real plant samples to let students “connect what they are observing, to what they have already acquired”. E15 gave an example of asking students to assume the role of an environmental manager to “prevent flooding and other natural disasters”. Only five teachers mentioned changes in this regard. T9 stated that his questions always required students to give “empirical examples on the ground”. T1 asked students to “compare the way you live today and the way people of long ago lived”, as she encouraged students “try to think and read themselves...try to express him or herself maybe in his or her own words”. In contrast, mathematics and science teachers stated this was not always possible. In T10 words, “if we have 10 questions, one or two can be about real-life”, but he also added that, in most topics, the linkage to everyday experience would be omitted.

Other dimensions of competencies, such as skills and values, were said to be focused on to a lesser extent. Most teachers pointed out that the national examination was still largely content-based. For instance, T15 pointed out “there is nowhere in my subject they will ask those competencies at the end”. He believed most teachers would only teach the examinable aspects. An official P10 saw this as a misunderstanding when the majority equated assessment with tests or examinations. He noted, “it is much larger than measurement, measurement is only part of it.” However, only one teacher T13 stated he did track students’ values and attitudes and he noted, “it’s not only in exams they have to show behaviour”, but also during learning.

7.3.3 English language

The medium of instruction (MOI) was also regarded as a key barrier to LCP by nearly all teachers (fifteen), and also eight trainers together with two officials. They similarly noted that language proficiency of teachers and students in the MOI was the key for any pedagogical approach. Regarding the switch in 2008/9 from French to English, E1 said that the situation was troubling when most Rwandans “could not even greet people”. Currently, he believed while fluency and pronunciation issues remained, “at least they try to deliver some lessons in English languages”. Apart from the three teachers, who were from neighbouring Anglophone countries, all were Rwandans, who had received at least part of their education in French. While they all shared a commitment to improve, such as saying “I try to use English more” (T3), they all mentioned the lingering challenges to adaptation. For instance, in T4’s words,

English is not our mother tongue language. We have problems in it...we don't master it in class. It is a barrier, because I may say something and they say I don't understand, because of that barrier.

Similarly, T12 expressed the frustration that “some teachers are struggling, even students are struggling, but we don't have any other choices”.

These participants pointed to language proficiency as a pre-requisite for teachers and students to interact regularly in LCP. For instance, E2 said “you need to explain what you read, what you do, so can you explain in language you don't master?”. T9 pointed out, if anyone “fails in just using English...they are going not to be performing very well”. E10 shared his observation that “most teachers who have difficulties to change are the ones who are not even mastering the language of instruction”. As a coping strategy, an official shared how teachers uncomfortable with English had resorted to “cramming” and hence, had negative impacts on student learning:

She could not herself write a proper sentence. And because she could not, she would fill blackboard without the required texts and the children could not take notes themselves. And those who studied with her as they went higher, even in S2 could not write properly... I felt sad for the children. It's really sad. They all go in long distance to go and learn nothing. (P3)

For future improvement, while one trainer believed the government should monitor teachers’ communication skills more closely (E1), two worried that this would further demotivate them.

Instead, E10 and E12 wanted to have specific teacher training focusing on effective teaching in English.

On the student side, the language barrier constrained the extent to which they could engage in LCP activities independently. An official P10 pinpointed the English barrier as the key reason deterring students from doing research. Noting “the culture of reading is still very low”, he also observed that even trainers and ministerial staff were challenged: “like these journals the language is too difficult, so people don’t have that proficiency. Even our staff here take long to read these, or they don’t read them at all”. T12 noted the struggling students were “not because they are weak or poor...they are not getting it because of English”. This was supported by a few trainers’ experience of student engagement being significantly stronger in lower-primary levels, which used Kinyarwanda as the MOI. In E2’s words, in Primary 3 “the class is loudly moving, students explaining”, while after transiting to English, Primary 4 classes in the same school were described as “very silent”, in which teachers were found “struggling to formulate the questions”, and meanwhile “learners are trying to formulate the answers!”.

Besides academic learning, more worrying was on the psychological displeasure experienced by disadvantaged students. E8 gave the following warning:

If the learners find the learning environment not conducive for him or her, he or she will be demotivated...if the learner does not understand English, they can be bored in class. You feel you are not comfortable in that environment.

Nearly all teachers echoed this observation specifically as occurring during presentations. Three teachers reported students losing confidence when “their colleagues are laughing at them” (T7) and thus, it “makes somebody shy” (T8). DoS1 explained that, in particular for students from villages, they were “not conversant in English when they come, they are shy, they even don’t want to act so that they cannot be laughed at”. T14 pointed out after a time, some students “don’t want to ask” or “have fear of asking”. Their “active” counterparts were typically reported to be from top private schools, where Anglophone teachers could better support students in acquiring English.

Regarding solutions, all 25 participants pointed out the urgent need for more teacher training. Notably, E10 advised that the responsibility should not be left to students and teachers alike to “please practice”, but rather, more language-specific feedback should be provided. All teachers also shared frequently they had to translate the materials or explain to students using Kinyarwanda. While noticing similar difficulties, participants were divided between whether

teachers should adhere to the official language policy or allow code-switching into Kinyarwanda. As shown in Table 7.1, three respondents valued using Kinyarwanda as a legitimate strategy to support student participation and understanding. However, three others considered code-switching as unconducive to the mastery of English, which was also considered as a cherished outcome of education.

Table 7.1

Views on medium of instruction

Kinyarwanda	English-only
“You can participate better in a language you understand better...so I would really urge that Kinyarwanda should not be left behind, if we want to improve the quality of education in general”. (E5)	“Should motivate students to use English in classrooms. So, teachers should also exercise themselves to be teaching in English...People are speaking vernacular, which is not actually promoting English language. There must be this campaign where students practise speaking English. There must be some competitions in terms of let's say debating, writing, whereby the best performer will be rewarded”. (E1)
“When you see students are not getting information, you involve some little Kinyarwanda, because the purpose, you see, is to make students understand... When a country is developed, students should learn in their language, their own language”. (T12)	“It is a must to speak only English...they have to do it to help our learners to know English, because the lesson is in English. You teach in English. There is no other language except English”. (T2)

7.4 Instructional environment

It's like you can be a good farmer. You have all the good knowledge, but then the ground of which you are farming is so dry, it's the facility is possibly lacking. So, you end up doing the old stuff. (E11)

The next major theme concerned the instructional environment, which was widely held as being incompatible with LCP. In the following subsections, the influence of class size, teaching

time, and resources are discussed, as participants reported that these factors made any attempts to improve teaching and learning difficult. This, it was said, led to the continuation of TCP, even when teachers understood and well-appreciated the rationale behind LCP.

7.4.1 Resources: “new wine being taken using the old bottles” (E11)

All participants across the stakeholder groups stated that LCP required updated pedagogical resources. The perceived student capacity for independent learning was largely enabled by ICT and library resources. For instance, E9 mentioned “learners are not trapped in the box”, because “learning is accessible anywhere, including through ICT”. For P10, “students can construct their own knowledge”, because “the books are more so they can come and read, not waiting for input from teachers or lecturers”. Nonetheless, even for the selected “schools of excellence”, participants mentioned the resources were still insufficient in reality. T14 shared that only “pedagogical documents” for administrative purposes were available and not resources for teaching. DoS1 supported this experience, when he said “I have been given the syllabus and this lesson observation sheet, but teachers don’t have books”. T13 critiqued that “at the top they believe everything is OK, but when you go on the ground, you find it is not OK”. In addition, most schools had limited differentiated resources to cater for students with special needs (E11).

As noted in Chapter 6, copying notes took up significant lesson time when students did not own textbooks individually. P3 explained that the ministry had plans to improve the student to textbook ratio. Furthermore, he added that with their own copyright, “we will be actually printing now, so there is hope that every child will have one book” (P3). While e-books for primary and secondary levels were publicly accessible on REB’s website, participants noted access to ICT resources remained limited. DoS2 pinpointed the lack of laptops, stable power and internet connections at schools remaining as barriers to access resources, even for teachers. He then mentioned how the few stacks of Positivo laptops “keep on crashing and require repairment in just a month. We are still waiting for REB to repair them”. Such ICT issues were referred to by a trainer as a result of resources being decontextualized. He went on to explain that it was “money wasted” to buy computers for rural schools without electricity or technicians to repair them (E12).

When all students were asked to do research, teachers, in particular, stressed the challenging reality of the whole school competing for resources in the single smart classroom or library that had functional internet connection. In T8’s experience, more than six students were sharing

one computer, but “everyone wants to touch the mouse”. He remarked that the school usually only allowed “one class at a time to make sure we have enough internet”. Without resources, students were only “to sit in that classroom, then they know nothing” (T16), with “no opportunity to do research after class or preparation” (T10). Two officials added that LCP required more than the textbooks. As P5 critiqued, “you can’t do research with one book” and P10 questioned similarly, “carry out research, where? To reference what? Where do you expect them to reference?” Teachers, like T15, mentioned that they usually ended up being the “centre of information” again and students would “depend on the teacher”, who had access to the internet, then “they copy everything”.

Laboratory resources were also described as being inadequate at “schools of excellence”. P6 noted often there was one piece of apparatus “for the teacher only”. The situation was even more challenging at 12YBE schools, where students had no access to laboratories and only a science kit. T8 described it as a box that had “a few things there, but there is nothing”. Students, thus, only had limited chance of conducting experiments in laboratories.

That said, four respondents believed resources were not the only factor. Observing how LCP was implemented similarly across schools, E13 noted the issue was “the ways those resources are used” was not the “right way”. In addition, E11 mentioned books were not supposed to prescribe teaching, and new books manufactured in a hurry would be “even poorer than the older books”. This was echoed by P6, who disagreed with teachers who claimed that “ah there is no textbook, so I can’t teach!”. He stated the belief of “everything has changed completely” had been unhelpful. Instead, he believed LCP could work with diverse resources and activities. He described textbooks were “just the content” and “proposals of activities”, which under in-house publication were written by “not even professors, but just teachers”. He stressed that creativity should permit teachers to plan activities related to the content using any existing textbooks, including those for TCP or from neighbouring countries.

Regarding solutions, some participants discussed various ways to improvise given the lack of resources. T11 noted “sharing is of paramount importance” in CBC in terms of pooling resources and T3 said he often visited the neighbouring school to use their library. For teaching aids, two trainers encouraged the use of “local materials” (E8) and to locate natural resources “in the surrounding field” (E15). An official P4 provided an example of using bottle-caps, whereby encouraged teachers to use them as they were widely available locally, and hence, they could use the “so-called rubbish for teaching purposes”. A mathematics teacher

successfully guided students in looking for beads to make their own abacus (T6), while a chemistry teacher had been able to demonstrate combustion using a bucket over a burning piece of wood (T4).

7.4.2 Class size: “You come and count yourself. There is no way to know!”

Apart from the lack of pedagogical resources, all participants underscored big class sizes as another pressing challenge for LCP. While “schools of excellence” had class sizes ranging from 35 to 50 students at O-level, a class in 12YBE schools often had over 100 students, particularly in S1. A trainer described class size as an “obvious hinderance to any form of teaching” (E12).

The large class size concerned all participants as it limited the extent to which teachers could monitor student progress and respond to individual needs during LCP activities. For thirteen teachers, time in LCP became a more dominant concern than that in TCP, when a typical lesson in the former case included group formation, discussion, presentation, teachers’ feedback, and making a summary of key points for notetaking. E1 noted that the time allocated was insufficient for differentiated learning in big classes, since “if there is a student who is not competent, you are supposed to help this person until they become competent”. E10 reiterated that, unlike when transmitting pre-defined knowledge, for competencies “you do need to assess a person individually”. This implied, ideally, that LCP was not about “one group member to do the work for the group or to present for the group”, but “each and every student” being involved (E14). However, all interviewed teachers contended that, given the time constraints, only a few students could make presentations.

Apart from academic progress, another major concern was regarding classroom management. Similar to my observation in Chapter 6, E4 noted when “everyone is talking” teachers could not even hear any response clearly. With the crowded classroom, teachers similarly described there being limited opportunity to check whether students were actually working on the set activities. In T7’s words, “you cannot reach everyone consulting one to see what they did and the results”, which was further detailed by T4:

You cannot know the problems of each student... you cannot access or assess everyone.
When the class size is not very big, you can know each student and the reason why he or she performs poorly. You can identify any issues.

This was echoed by officials, such as P7, who admitted “yes, it is difficult, very difficult to manage all students”, while P10 added that “some are not writing, but there is nowhere to pass

so you just see the ones sitting in front". Trainers and teachers alike stated students had limited motivation, knowing they would not be chosen to have their work checked:

When they know they will not present all, sometimes when you give tasks, some of them, they say 'ah-ha we will not be chosen', so they are like keeping quiet and not working. (E7)

After class, large class sizes also rendered grading or marking with individualised feedback difficult. All teachers described the workload when they taught multiple classes and/or subjects for approximately 36 periods in total per week. For instance, T9 described how when he taught Swahili, English and English literature for all O-level students, even one question could be overwhelming:

There are about 600 students, so just imagine that, marking every student and you can see just marking a student it's not enough! You are supposed to provide feedback to the students whenever he or she has gone wrong. You are supposed to give recommendation; you correct here and here, improve this and this!

Regarding a solution, officials mentioned there were plans being made for teacher recruitment and school construction. T11 believed that until then, a more positive mindset would be needed "whenever there is a challenge there is a solution". He often organised extra classes at weekends for students. Other teachers indicated they tried their best during preparation before and after the school day, but there was not enough time to ensure all tasks were met satisfactorily. DoS1 added that, while waiting for the district to allocate more teachers, the school had temporarily resorted to employing part-time teachers, whenever the school could afford "some little money".

7.5 Student factors

"Teaching, it's like selling, you can't sell when you don't have someone to buy". (T12)

7.5.1 Student motivation and discipline

Student response to LCP was another key area of discussion. While only touched upon by two officials, fifteen teachers and eight trainers believed the unsatisfactory use of LCP could be attributed to student discipline and their lack of motivation. Despite teachers providing opportunities for student involvement, these trainers had observed that only a few engaged with the tasks assigned. E7 made the point that, students were "in groups, but not as a group". E7

and E8 both worried about the dominance of “strong” or “clever” learners, whilst E4 believed students “don’t know the importance of working together” and hence, most were “writing answers separately”. Teachers echoed similar observations. T9 shared that “fast” learners often got impatient and asked him “why don’t you go on to other units?”. Others were concerned about the lack of motivation among those students who relied on a few to complete the task. In T1’s experience, many “hide behind others and don’t participate”. Four trainers noted that similar situations had taken place at UR-CE. E8 pointed out that most teacher trainees were “not able to discuss” and “not oriented” towards LCP. E2 believed this reflected that, students remained dependent on “being given notes” to memorise, rather than doing their own learning.

The minimal student involvement made most teachers frustrated. T10 underscored the need to develop the “spirit of struggling” and “resistant to failure” through working to ensure good performance. Particularly on mathematics that required practice, T14 emphasised “you can’t read mathematics, you can’t learn without working. You must work”. Despite being “schools of excellence”, teachers generally described the majority of O-level students as not “working hard” or “not behaving well” (T16). A few teachers also contrasted the experience with teaching A-level students, who were described as being more self-motivated, as shown in Table 7.2:

Table 7.2

Teachers describing A-level and O-level students

A-level	O-level
<p>“They have many questions...every group calls me for assistance”. (T4)</p> <p>“They are active, mature, quiet, not shouting...always asking for extra work”. (T2)</p>	<p>“They don’t have that habit of asking for assistance... they are not well involved in the group work. You put them in groups, they think it’s the time to converse, to joke, to talk about other things not related to the topic”. (T4)</p> <p>“They hesitate to work, they are very lazy, they are not into it”. (T8)</p> <p>“They are disorganised...cannot concentrate”. (T11)</p> <p>“Some are there physically, but their minds are somewhere else”. (T12)</p> <p>“Noisy...always doing childish things”. (T1)</p> <p>“Ever-disturbing, so to manage them it is not easy”. (T16)</p> <p>“Students are shouting and shouting, shouting and shouting”. (T14)</p>

In addition, a few cases of bullying were noted by T11, after which students had “phobia, so they decide to shy away”. These concerns were, however, not reported in TCP, where teachers had greater control of the lesson pace and content. Regarding authority, T1 described how a teacher under TCP was deemed like “an animal” and “can’t joke with the students”, while the “disturbance and noise” in LCP was considered to be as a result of “they don’t fear the teachers nowadays”.

The explanation given was that Rwandan students mostly studied with extrinsic motivation. Hence, student involvement in LCP activities was influenced by their perceived relevance to their examination results. T9 noted students made a “countdown clock” until the national examination and only at this stage would they “wake up” and “start concentrating”, instead of

“relaxing”. Two teachers supported the removal of the policy of automatic promotion³⁵, which did get terminated in February 2020 (Kantengwa, 2020). In T14’s words, students “don’t want to work”, when they realise, “if I don’t work, I can still move on”, whilst previously students could be removed from school for “indiscipline”. He then questioned “I don’t know if that is education or not, this they call education for all?” He believed it was unfair to make teachers bear all responsibilities:

Mistakes are for teachers; students have no mistakes. It is a problem! But if you communicate with the administration, not only here, but for example REB, MINEDUC, the problem is not the students. It is you! (T14)

With the high unemployment rate among university graduates, E4 believed students were uninterested in participating in LCP, when they found “learning is not helping them”.

To improve student motivation, teachers converged on enforcing discipline through rewards and punishment. In T9’s words, it was important to be “harsh”, as “discipline cannot be missed there”. T16 often used marks as incentives like, “keep quiet and I will add you one mark”, while other teachers mentioned sending “disturbing” students to the discipline office. Teachers also mentioned in-class punishment of kneeling down, facing the wall, and beating without causing physical injuries. For instance, after finding students looking at books that had nothing to do with lesson a teacher described how:

I said, ‘in front of you is only your books for mathematics only, other books you put them very far’. We are to go with a small stick, if I see you are absent-minded, I do this (*swinging the yellow ruler*) Wake up! When they see me coming with a stick, ah they are in order! (T10)

T12 explained “beating” was more as a symbolic gesture, rather than the traditional corporal punishment, which had been prohibited. He noted that, it was vital for students to realise “you are serious, it is something you can’t tolerate”. Yet, due to large class sizes, all teachers also admitted they could barely monitor more than a group of students at a time. As the effectiveness of these strategies was described to be short-lived, T12 advised it was also important “to know each student and the way he or she behaves”.

³⁵ Automatic promotion was introduced in 2001 to lower the repetition rate, and “to avoid unnecessary compartmentalization of the learning process and create space for children to acquire foundational skills at their own pace” (World Bank, 2003, p.50).

Apart from the threat of punishment, “formative assessment” was reported to be another strategy for motivating students. Eight trainers mentioned this was intended to monitor students’ achievement of learning objectives and personalise support, accordingly. In E11’s words, it was an “assessment for learning...to inform subsequent teaching approaches and points of emphasis”. While four teachers shared similar descriptions of checking student understanding, like “if they are able to understand each and everything” (T16), eight, including T2, explained formative assessment in the format of “periodic tests” to ensure student studied well. In T14’s words, “use small quiz, but at the end of the unit you use a test. That means you can add more tests”. T12 justified that more tests could keep students “in a mood of revising, listening and following explanations” He explained further, “if they know they have tests, they have to sit down and read the materials and the content...they follow and ask questions”.

Three trainers worried about learning being even more examination-oriented, if teachers only relied on tests to motivate students. They suggest that intrinsic motivation should also be targeted to enable LCP. E13 highlighted how effective LCP encouraged students to take a lead in “self-regulated learning” and yet, he saw that in reality students were “ordered”, but not made to be interested in going to school. Hence, he advised the following:

Not just saying it is a government obligation to make it a responsibility to go to school.
Not just saying LCP as the official form, whereby learners must be in groups as the form. No, we need to make learners understand what they come to school for; what they have to do at school.

E12 reiterated the value of a *content-based* approach to LCP, rather than solely relying on various learning activities. He asserted that the importance was to “excite” students by situating the content in their everyday lives. This was in line with a few teachers’ observation that students were the least “active” in abstract or decontextualised topics, such as European history, which T11 described as “boring”. T13 noted students were all eager to share their views about human rights issues, but not English grammar. T12 held that education should be “dynamic” and “we should not teach these, because in Uganda they teach them, because in Tanzania they teach them, no”. He argued that industrial chemistry topics, such as preparing sulphuric acid or ammonia were less relevant locally, whereas alcohol fermentation would be more stimulating, as thriving local breweries, like Bralirwa, were appealing to students.

7.5.2 Student capacity

Besides motivation, twelve teachers, eight trainers and an official reported LCP working better with high performers. These students were said to have a higher capacity to conduct research, contribute ideas in English, and stay more “active” in LCP activities. In contrast, E1 for instance pointed out LCP was difficult for “struggling students”. As shown in Chapter 5 (Subsection 5.5.4), only one teacher appreciated “slow” learners. In addition, only one teacher was confident that her students were adequately prepared for LCP. She explained they were “knowledgeable”, where “these children they know everything, they know the machines” and could also visit computer centres in town to “do research” (T5). In contrast, other teachers talked about low performers, who were typically described as less active. This is shown in Table 7.3.

Table 7.3

Comparison of higher and lower performing students in LCP

High performers (classes “A and B”)	Low performers (classes “C and D”)
“It is very easy. You just tell them a word, then they go beyond the word, they discover a lot, they are active they are interested. It is a very interesting class...they do it very quickly, quickly and good”. (T1)	“We spend the whole week asking them bring the materials... he or she is saying I don’t know, it is left there in the dormitory. So, S3C they are not motivated, they are lazy, they are not encouraged...students are not with us...physically, yes, but not mentally. They are absent-minded. They are looking outside, talking...I move around. I show them where to start. I wake up some of them. Because some of them they are about to sleep, because they don’t know how to study”. (T10)
“They may participate themselves; they are really in there... I give them 20 questions to solve, then they solve all! This means that this class is working harder than the other class”. (T14)	
“Always asking questions where they feel they have not understood well...they are always challenging you. That shows that they are learning”. (T11)	“They don’t do it, even if they do it, they bring like three sentences...it is where the teacher should play a bigger role than the students. I work harder than in other classes...you have to almost do their work...you explain more, you do a lot of exercise, you also correct them”. (T12)
“They were answering all the time”. (P3)	

In the lower performing classes, teachers agreed that activities associated with LCP worked much less well than their direct explanation. T12 worried that, “if the technique is not matching the level of the students...the students will not get anything”. However, nearly all teachers stated they still used almost the same LCP methods for all classes. This was attributed to direct teaching being associated with TCP and its negative connotations, such as cramming. Hence when there was pressure to demonstrate the use of LCP during inspection, direct teaching was used less, despite its benefits (see Section 7.7)

To account for differences in student capacity, participants commonly pointed to family background and primary school attended. For instance, E11 believed LCP had assumed the “social capital” of middle-class as the norm, and therefore, students in 12YBE would “behave strangely”. T6 similarly explained that those who were well-equipped with English and study skills were almost all from “very good schools”. In contrast, those who did not have the capacity to participate in LCP activities and were often described as “misbehaving”, had become “slow learners” (T11). Both DoSs, as shown in Table 7.4, compared the adaptation to LCP among students from different schools. “Schools of excellence” were described as being more conducive to academic activities due to stronger peer support and facilities.

Table 7.4

Comparison of “schools of excellence” and 12YBE schools

12YBE	Schools of excellence
“You find students from village...they have nothing, no laptop, no books and even no food. Then, their teachers give them homework to do research, how are they going to do it? They are busying fetching water, maybe cultivating, but not studying anyway. Then, next day when they come, they have nothing”. (DoS2)	“They live together...they come they find others they have done something, also they find they are behind, so actually they have to rush also... we learn by experience. I see somebody has done this, so I say also I have to do it...we have a library even sometimes we open it during the night. So, they go, they research”. (DoS1)

7.6 “Culture doesn’t change overnight”³⁶

“Education is not automation or engineering” - (E11)

As teachers and students were also situated in the broader socio-cultural environment, twelve teachers, twelve trainers and five officials believed it was difficult to change the embedded practice as the learning culture. They believed it often contradicted the expectations in LCP. Two trainers, thus, stressed that it was unrealistic to expect successful changes within a few years.

Regarding whether the broader social atmosphere was conducive to open sharing, two officials remarked that Rwanda was committed to being “a country that is open, that lets people express their ideas” (P2). Noting the critiques in some journalistic reports, P2 clarified the policy was that, “they cannot intend to tell what they want when it comes to making conflict, but there is expression of opinions sufficiently”. This was mostly through interactions through social media, as P2 mentioned all ministries had accounts and had encouraged people to “say what they want”. He believed soon “more than 80% population of Rwanda will have a device”, which was deemed as being on track to making society more open.

While LCP promoted an egalitarian relationship between teachers and students, these participants pointed out that respect for seniority was an embedded norm in Rwanda. Two respondents described Rwandan culture as “hierarchical”. In P1’s words, “every citizen to respect each other, especially younger to respect elder” (P1). E4 similarly referred to the tradition when elders were present, “we listen to them”. Such respect could go further when “some parents even did not allow children to air their views” (P3). These views were also often found in educational settings. Similar to teachers’ image in TCP described in Chapter 5, E8 explained that, traditionally, a strong social distance was maintained between teachers and students, “even to pronounce his name, it was not allowed, you just say, ‘yes professor’”.

Four participants highlighted gender norms as another layer of unequal teacher-student relations. T5 explained, traditionally, “a woman was supposed to be seen, but not heard”. She recalled at her school, some parents “don’t even want their daughters to be involved in debates”, because when girls “stand in front of people who start giving ideas they become shrewd, not feminine”. She stressed that girls were often less likely to participate in classroom activities

³⁶ Quotes from P10, interview

since “our culture wants men to talk and women to be feminine”. A few participants, however, claimed that gender equality had already seen improvement, with many teachers discussed cross-cutting issues in LCP. E10 described it as a “significant impact” as more students “feel they are equal, teachers to treat them equally irrespective of the gender aspect”. In E1’s observation, “students are speaking, girls or boys, no one is dominating over”. Yet, some topics remained as cultural taboos, such as sexuality education. T8 noted parents were too “shy to talk about sex with their kids”. Hence, girls tended to stay quiet in front of male teachers, as he suggested, “maybe they have fear, because I am a man”

However, E12 warned it did not necessarily mean moral education was seen as “bad”. He noted the intention was “a way of teaching you respect for someone older than you”, instead of causing fear among students. Yet, with the embedded identities of teachers and students, some participants, mostly officials and trainers, found this presented difficulties for ensuring the free interaction expected in LCP. P3 pointed out many felt “difficult to open up to say what they think”. He described how most students would “look down” when teachers were teaching. P1 added teachers needed to make a lot of effort to “try to prompt them”. Among the students, *E4* believed it was popularly believed that “it is up to the teacher to say something, because he’s the elder”. Two trainers echoed this observation that only teachers’ words were counted as legitimate knowledge. In *E4*’s observation, after discussion, students “don’t trust each other” when ideas were contributed by peers. They still wait for the information from the teacher”. E16 likewise mentioned:

Students give more credit to what the teachers have said or have validated. The students are not comfortable, if the teacher has not yet given the green light to say that this is right.

E16 described it as the most “problematic mentality” for LCP, when most still respected teachers as “the only authority” and “you cannot even contradict teachers”. Comparing this with his experience in Uganda and some western countries, where questioning teachers was said to be the norm in learning, E11 shared it was not always the case in Rwanda. LCP required students to “feel that he can question you, that he can disagree with you, not everything that the teacher says is correct” (E11).

On the teachers’ part, E11 pointed out that they were not machines, but “humans after all”, with their own beliefs. He explained it took time and effort to understand the reasons behind “not to take control” and to “let go of some of your authority”. He elaborated, “for a teacher to

know that, hey, I might be wrong and he might be right, that's too painful for a teacher to take too". Hence, he described LCP as "it's good, but then the culture is not supportive of that". Four trainers, thus, stressed that beyond teacher training on pedagogical skills, more promotion of a friendly teacher-student relationship was equally important. They similarly contended that there was the need for the creation of a space, where "students can talk to you anytime" (E8). This was detailed further by E5:

I will be happy, if a student can ask me challenging question, that's what I always ask them to do. I am also a learner, because we all learn from each other in this active pedagogy. We all, we are all learning, we are a learning organisation actually.

However, for teachers, they indicated it was students who often actively resisted becoming involved in LCP activities, rather than being in fear of the teachers. T8 asserted that students expected "the teacher to work for them all the time; the teacher just feeds them with everything". Complaints had been received by six teachers when they had requested students to do research or make notes. On group discussion, T4 pointed out students "have a resistance" to doing activities, as in the following:

They said 'no we want the teacher to explain or discuss for us. We don't want to discuss it ourselves'...They don't understand well that they have to be involved in the work. They think they are there to listen only...They don't want to be in groups, they don't want to be active in class, they want to sit and want teacher to be in front and speak and speak.

DoS1 echoed this observation by sharing that LCP brought regular complaints from both students and parents about teachers "not teaching". In his words, "they said 'teacher now is not there to help...but only ask us to work'", and students were "still refusing to take notes". T15 mentioned the disappointment and frustration when he was called a "bad teacher" as his students argued "you don't help them...they feel it is your job". T6 experienced students refusing to respond to questions, and "think the teacher doesn't know" until he showed them the answers, and still many demanded "you are the one to do something about it". E16 attributed this situation to the "culture of orality", explaining that "people like to hear, to listen, to talk. But writing and practice themselves...they are not used to do, to take initiatives, and practise by themselves".

7.7 School leadership

At the school level, nine trainers also joined by six teachers and two officials discussed the importance of school leadership in supporting LCP. Some attributes of school leaders were deemed valuable to enable changes, including the knowledgeability of LCP (E12), positive attitude and commitment towards education (E1, E6) as well as willingness to set expectations for students (E1). Teachers emphasised good leaders should not dismiss teachers easily. Instead, they could “cooperatively work hand in hand with teachers...as someone behind to push teachers’ abilities to achieve more the goals, to fulfil their promises” (T7). The trainers expressed the view that the culture of inspection was un conducive to peer learning among teachers (see Section 7.2.3). Regarding which, E13 noted inspection made teachers “not confident with what they are doing, so they were somehow hiding from each other”. E13 wished that leaders would stop dismissing anyone as being “not up to standard” and supporting them instead:

We have to analyse, to assess people, and see where they have gaps. From these gaps, we have to provide extensive and strong support, accordingly, otherwise you may just change people without good outcomes.

Moreover, E5 described learning as being a “process”, which went beyond the curriculum. Hence, he wished leaders “not to be bound to the curriculum”, but rather, to support learning activities initiated by both teachers and students. More space and trust were deemed beneficial, as he elaborated further:

Teachers and students have the potential to do their work well...if we can trust our student, if we can trust our teachers and let them do what they can do, instead of always providing instructions; everything from above. Well, it makes our education weak.

Seven participants also had experiences with school leaders having competing priorities beyond teaching and learning. E12 noted how in some schools teachers were not allowed “to print even one paper”. In 12YBE schools, T8 believed some leaders had not attended any training, and they “don’t go to class like once in a month”. That said, similar to the issue of low salary that limited teacher capacity when engaging with teaching, E12 called for an interpretive understanding of school leaders’ circumstances. He noted those leaders often had to cater for 5,000 students with limited facilitation to do so. In one instance, E12 described how

a headteacher “took six students to the clinic using his personal vehicle” and hence, teaching could become secondary.

A further challenge was on the multiple dimensions and definitions of LCP (see Chapter 5), which were not necessarily shared by all inspectors, school leaders, trainers and teachers. For instance, an official P6 shared an experience when a headteacher intended to dismiss a teacher. However, P6 disagreed with the leader’s decision and instead praised the teacher with the following comments:

The teacher was standing among the students, and students were involved in different tasks. They were performing their own tasks in the groups...they were active, discussing, and seeking advice from other students. The materials were there, so it was dirty, but very active...it might look like disorder, but it was organised from the teacher’s perspective. The teacher made order in an actual sense; it was letting much democracy to be there. Students were free to talk, to act, to interact, and all were under the guidance of the teacher. You also saw many students coming to the teacher for clarification.

E5 reported that some school leaders were mostly concerned about teachers’ coverage of syllabus, like “did you teach this? did you cover all the content?”, rather than whether LCP was used. This concern also echoed teachers’ experiences. T4 explained that, while he intended to try LCP, the reality was “you just follow what the boss said, and that’s it”. T3 confirmed how to fulfil the inspection requirements, LCP had to be suspended as “that’s when I have to focus, to put an end to the unit. I am not supposed to start with questioning, research and other points”. For leaders who supported LCP, teachers commonly mentioned group work was a key indicator in inspection. T8 explained that “the moment you talk about learner-centred people think bring in the learners in the group...the DoS feels that is what should be done...some teachers do that one, because that is what they will be inspected on”. This showed that leaders’ priorities influenced teachers’ practising of LCP.

7.8 Parents

Lastly, twelve teachers together with five officials and four trainers also discussed how parental involvement had a key impact on student learning. For instance, P4 noted with socio-emotional support at home, one could develop the sense of belonging and “find himself or herself is loved” (P4). These could boost students’ confidence and engagement in learning. In contrast, many

struggling students were “not catered for” at home as they faced family problems (T7). Parental involvement was said to be even more crucial than before, as under LCP learning is expected to go beyond class time.

These participants believed the issues around student motivation and capacity, as described in Subsection 7.5.1, could be partially attributed to parents. They reported how many parents expected schools and teachers to share full responsibility for learning. Particularly in rural regions, both P1 and E2 described parents as “not interested” in students’ schooling, and hence, teachers found materials, punctuality and drop-out issues more challenging. P1 believed some parents prioritised “their own benefits” ahead of those for their children and the wider community, a situation he put down to “mental poverty” and “ignorance”. P3 similarly explained some parents’ attitude was on survival needs, where “parents think about their vulnerability, rather than helping their children to come out of it. They would say I don’t want school, so let him come and work with me.” He added that “education for all” was often understood as “free” education, and hence, parents were often reluctant to contribute “as little as 500 francs, when they drink every day”. Yet, given the high birth rate, as P3 pointed out, the government was unable to support all children in education. Hence, he underscored educational provision was “not easy...until parents understand the importance of education and they actually sacrifice for that”.

Seven teachers expressed the unfairness they felt when they were blamed for poor student performance and participation in LCP. For instance, T9 described how students at home were “just relaxing”. T16 noted that many parents admitted students “don’t revise at home...they came home eating, sitting, and afterwards watching the TV” and yet parents regularly questioned him “why are my kids not performing?” This was similarly observed by DoS2, who had been frustrated when requested for more parental support:

Some don’t care about the students, like they pay school fee and expect the rest is left to the teachers or DoS or the school to care about them. This creates serious problems in learning, when students need to learn. Especially with the day scholars, you find some have no books, they were left at home. And you find that parents are not with the kids, why?

Given the historical realities in Rwanda, three teachers and both DoSs indicated many parents were genocide survivors and had had no opportunities to be parented or attend education. While T13 observed that parents who were educated were more likely to support their children’s

education, DoS2 pointed out, just like the teachers, many had been educated under the previous approach and did not fully understand LCP. DoS1 added that most parents did not speak English and had never used technology during their own studies. Hence, these parents could hardly support their children at home even if they were willing to do so. For P10, the parent-teacher association, thus, had an important role to play “to make people take part in the learning of kids beyond the classroom”. E11 described how community contributions had also enabled some schools to improve their infrastructure to cater for students with special needs.

The voices from participants reported in this chapter have shown that LCP reform was not simply a technical change in teaching methods. A sole focus on teachers and their practices would amount to inappropriate reductionism to account for the degree of change in response to LCP. Instead, the implementation of LCP was considered to be a responsibility to be jointly shared by the key actors, including teachers, teacher trainers, students, school leaders and parents. The efforts were further influenced by factors relating to policies, the instructional environment, and the embedded culture. In the next chapter, I will synthesise the findings from Chapters 5 to 7 and reflect further on their implications for the LCP reform efforts in Rwanda and beyond.

CHAPTER 8 REFLECTIONS ON THE IMPLEMENTATION OF “LEARNER-CENTRED” PEDAGOGY IN RWANDA

This thesis began with the recognition of a global concern on the quality of education, which is often known as the “learning crisis” (World Bank, 2018). Valuing the centrality of teaching and learning in addressing this concern, the study was focused on one of the widespread pedagogical innovations of Learner-centred Pedagogy (LCP). Apart from being promoted by global authorities, including UNICEF and UNESCO (Vavrus et al., 2011), LCP has been introduced in at least 39 country contexts (Schweisfurth, 2011). However, the literature review in Chapter 3 suggested that LCP remains ambiguously associated with eclectic theoretical traditions (Schweisfurth, 2013; Starkey, 2017; Tangney, 2014) and that there are no coherent practices evident across these settings. For various contexts in the global South, there have been further doubts on the success in implementing LCP reforms due to a range of identified challenges.

As a national reform agenda since 2016, the chosen pedagogical reform of LCP in the Rwandan context provides a relatively new case study. As explained in Chapter 2, it was driven by the competence-based curriculum (CBC) implemented in 2016. Apart from addressing the poor learning outcomes, the reform has sought to reorient education to support a range of socio-economic needs in line with the nation’s post-genocide development goals (REB/MINEDUC, 2015a). In accordance with the qualitative vertical case study design discussed in Chapter 4, three selected groups of stakeholders comprising government officials, teacher trainers, and teachers were engaged with. Chapter 5 reported how participants perceived the rationale and meanings of LCP, while Chapter 6 explored how teachers implemented it in their classrooms. Reflecting on the implementation of LCP, Chapter 7 covered a range of concerns and dilemmas raised by participants.

The major finding from the Rwandan case study is that, despite the progressive changes desired by participants (Section 8.1), LCP in classrooms has primarily been enacted by the formalistic use of certain activities, with some changes in content (Section 8.2). To guide the reflection of findings, Section 8.3 will discuss how Guthrie’s (2018) teaching style model provides a useful conceptual framework to revisit various pedagogical styles in line with local realities. To recentre the focus on improving learning as desired by the curriculum developers, some participants viewed LCP less in terms of activities than the content. This view echoes Guthrie’s (2018) call for “paradigm reversal”, among prior studies, which values depolarising

pedagogical approaches in the promotion of LCP (Brinkmann, 2019; O’Sullivan, 2004; Vavrus, 2009). Lastly, to move the reform agenda forward in Rwanda, Section 8.4 discusses the need to consider a range of intertwining systemic issues, which are often beyond teachers’ control. Participants’ accounts suggest that the implementation of LCP involves a complex interplay of actors and factors, which support Fullan’s (2007) call for a whole-system approach to enable educational change.

8.1 The perceived shift from “Teacher-centred” to “Learner-centred” pedagogy

Borrowing Steiner-Khamsi’s (2006) term of “travelling reform” when international policies get introduced and recontextualised in different localities, LCP reflects one such example taking place in Rwanda. Different to Tabulawa’s (2013) worry about LCP being a “western imposition”, or Mtika and Gates (2010) who describe it as “not taken root in the classrooms” (p.397), the findings from this study provide no evidence of LCP having been rejected. Instead, similar to curriculum reforms in African contexts (Chisholm & Leyendecker, 2008), LCP in Rwanda was welcomed as a label imbued with locally relevant meanings as well as pedagogical inspiration drawn from other countries. The findings have shown that, despite the everyday dilemmas and systemic issues, government officials, teacher trainers, and teachers, in particular, were generally positive about the opportunities offered by LCP. Whilst the conceptualisation and practice of LCP were different, efforts have been made to deliver benefits through classroom practice.

Participants converged on using LCP to overcome dissatisfaction with the previous “knowledge-based” or “teacher-centred” approach (see Chapter 5, Subsection 5.2.1). Participants across stakeholder groups similarly viewed LCP as an approach to help students cultivate applicable skills and competencies, which included Rwandan cultural values and attitudes. The holistic view on “competencies” was in line with the definition provided by UNESCO-IBE (2013). Such a desire simultaneously supported the “preparatory” narrative on LCP found by Schweisfurth (2013), and the humanist perspective on the phenomenon (Tangney, 2014). While constructivism has been a popular theoretical backbone of LCP elsewhere (Schweisfurth, 2013; Starkey, 2017), including in some African contexts (Bartlett & Mogusu, 2013) and prior studies in Rwanda (T. Nsengimana et al., 2017; Otara et al., 2019), it was only mentioned briefly by a few teacher trainers. That is, no officials or teachers referred to constructivism as the rationale behind the LCP reform. Given LCP was officialised in CBC

as a national curriculum, this convergence among participants on the perceived reform goals was probably to be expected.

The anticipated roles of students and teachers in the Rwandan case of LCP reflected some democratic and emancipatory ideals noted in prior studies (Schweisfurth, 2013; Starkey, 2017; Weimer, 2002). Teachers were described as “facilitators” and students were to be “active” in their learning. Nevertheless, the articulated meaning of these roles varied within and across stakeholder groups. The vast majority of the participants (16 teachers, 15 trainers and four officials) shared an *activity-based* understanding of LCP. This refers to defining LCP based on student “active” participation in one or more visible tasks. This understanding largely resembles how LCP was defined in prior studies, including Rwandan lecturers in higher education (Schendel, 2016); teachers in Tanzania (Vavrus & Bartlett, 2012); and in Uganda (Altinyelken, 2010). It also matched the examples given by the list of activities in the curriculum, namely: “individual, paired and group work, oral questioning, discussions, debates, role play, presentations, projects, practical work, investigations, problem-solving, assignments, field visits, tests and quizzes” (REB/MINEDUC, 2015a).

A minority of participants, however, treasured a *content-based* understanding of LCP (one teacher, five trainers, four officials). This view argued that LCP was compatible with multiple teaching formats, and the focus should be on engaging students by connecting content to their everyday lived experience. It reflects the view of socio-cultural theorists, who have emphasised the role of context in the mediation of learning (Jegede & Aikenhead, 1999). This conceptualisation of LCP in terms of contextualised content has been, however, much less discussed in LCP literature, with the case of Namibia being one exception to this (Kasanda et al., 2005). Some African scholars, whilst not directly associating such a desire with LCP, they have problematised the decontextualised curriculum content as colonial legacies (Mchombo, 2018; Shizha, 2013; Woolman, 2001). These scholars, thus, have argued for indigenising or localising content to improve student learning. Table 8.1 summarises the two pedagogical approaches in Rwanda, according to the participants’ views.

Table 8.1*The comparison of two pedagogical models*

	Teacher-centred	Learner-centred	
Focus of learning	Content knowledge	Competencies	
		Knowledge and skills	Values and attitudes
Purposes of education	Transmit academic knowledge	Apply learning in real-life to meet local and global socio-economic needs	Promote holistic personal development and maintain peaceful social relations
Role of students	“passive”	“active”	
	Receive and reproduce knowledge given by teachers	Be responsible for, and participate in learning activities both inside and outside classrooms, like research, presentation and group work	Cultivate positive values and attitudes
Role of teachers	“source of knowledge”	“facilitator”	
	Deliver pre-defined knowledge to students	Activity-based	<ul style="list-style-type: none"> • Before activities: clear instruction and organisation; • During activities: guiding learners but not directly involved; • End of activities: summary and clarification
		content-based	Situate academic content in students' day-to-day context to link theories and practice
			Incorporate positive values, attitudes, and cross-cutting issues in academic content

The two major conceptualisations of LCP identified in this study – *activity-based and content-based* – were closely attributed to participants' reflection on teachers' enacted practice in Rwandan classrooms and local realities. To achieve the intended purposes of the curriculum

reform, they noted the need for focusing on the content and learning principles to enact LCP beyond activities.

8.2 The formalistic enactment of LCP

Despite participants describing the Rwandan reform of LCP as having shifted from being “teacher-centred” to “learner-centred”, as discussed in Chapter 6, only a few dimensions desired by participants were enacted in classrooms. Table 8.2 provides a summary comparing the perceptions of the Rwandan participants on LCP, and instances of it being enacted by teachers in classroom practice.

Table 8.2

The comparison of perception and practice of LCP

		Skills		Values and Attitudes	
		Perception	Practice	Perception	Practice
Role of students		Participate in learning activities both inside and outside classrooms	Some took part in research, group work, presentation with short-responses, and writing on the blackboard	Cultivate positive values and attitudes	Write stories using culturally-relevant themes, like peacebuilding
	Activity-based	Before activities: clear instruction and organisation	Provide and copy the questions; rearrange classrooms to form groups	Serve as role model and guide to students to reflect on positive values through experiences	Ensure gender balance in numbers; encourage students to help each other in groups
Role of teachers		During activities: guide learners, but not become directly involved	Repeat instructions; maintain discipline; time-keeping; respond to individual questions; check answers		
	content-based	End of activities: summary and clarification	Elicit and validate answers from students; copy notes		
		Situate academic content in students' day-to-day context to link theories and practice	Ask for the application of subject content; use everyday examples in Rwanda to illustrate subject content	Incorporate positive values, attitudes, and cross-cutting issues in the academic content	Share with students the importance of cultural values and practice; encourage giving back to local communities

Largely consistent with the dominant *activity-based* understanding of LCP among participants and the example activities listed in the curriculum, teachers showed routine commitment to inviting student participation in various activities, these most commonly being research, group work, and presentation. Students were also always encouraged to ask teachers questions. These could be potential signs of success of the pedagogical reform, as the findings were in line with evidence from three recent research projects on Rwanda about the range of learning activities in use (T. Nsengimana et al., 2017) and the friendly interactive relations between teachers and students (V. Nsengimana, 2021; van de Kuilen et al., 2020). In contrast, observations conducted before the reform seemed to suggest otherwise, such as those of Bentrovato (2016) and King (2014), who both described Rwandan students as passive recipients and even fearful of open discussion. That said, my findings have revealed similar worries raised by the studies referenced above and Rwandan teacher trainers as to whether these small changes were sufficient to support the larger CBC reform objectives. There are various higher order thinking skills listed in the curriculum as follows:

- Critical thinking
- Creativity and innovation
- Research and problem solving
- Communication
- Co-operation, interpersonal relations and life skills
- Lifelong learning

(REB/MINEDUC, 2015, p.8)

Using critical thinking as an illustration, which was also one of the most common skills mentioned by participants, the concern about whether it can be cultivated through activities is highlighted below.

Apart from a wide range of systemic issues to be discussed in Section 8.5, prior studies concerning “active” learning in classroom have identified some common issues in teaching practice. These are summarised in Table 8.3 together with critical comments raised by teacher trainers in this study. They, to varying extent, worried that teachers making students talk or work in groups did not necessarily lead to improved learning.

Table 8.3

Some key issues identified in LCP practice

Issues identified by prior literature	Key quotes from teacher trainers in Rwanda
<ul style="list-style-type: none"> Using “active” format in classrooms cannot be automatically equated with “active” learning (Mayer, 2004; Prawat, 1992; World Bank, 2008). 	<p>“When you throw kids in a group, that is not synonymous to active participation; it is not synonymous to active learning”. (E11)</p>
<ul style="list-style-type: none"> Teachers mostly used close-end questions, thus leading to students giving factual responses, as in Uganda (Altinyelken, 2010); Nigeria (Hardman et al., 2008); and Tanzania (Bartlett & Mogusu, 2013; Vavrus & Bartlett, 2012) 	<p>“Any exercise that someone can do alone, when you put students in a group... everyone can do it alone; it’s a waste of time, and it’s annoying for students”. (E5)</p> <p>“The book is there, solutions are there! So, what are they doing in groups? To read and just read it for you?” (E2)</p>
<ul style="list-style-type: none"> Teachers’ role during student activities was mostly on task supervision and less on ensuring learning cognitively, as found in South Africa (Nykiel-Herbert, 2004) and India (Singal et al., 2018). 	<p>“You have not directed; you have not taught so what are they going to discuss?” (E12)</p> <p>“How are they organising those groups, and how are they exploring the findings from the groups. For me I may say that it is catastrophic”. (E16)</p> <p>“Everyone comes with different abilities and characters so we should not make everyone just talk in the same way. Some need more time to think. When you ask a challenging question, that reasoning also takes time. So, they need to think and come back later, not just talk whatever right away”. (E15)</p>
<ul style="list-style-type: none"> Teachers accepting all students’ answers as constructed and thus, risk misconstruing knowledge (Gordon, 2009; Nykiel-Herbert, 2004) 	<p>“Teacher is to direct where they go wrong...like this saying contradicts the theory, contradicts social examples...some can argue things that are not logical. Teachers should be giving [students] enough content, actually to emphasise proper content”. (E12)</p>

These worries on learning were largely supported by my classroom observation data (Chapter 6). Except in the subject English, most discussion questions were close-ended, including history, in which open-ended questions might result in students recalling points from the same reference. Most students provided only point-form answers in English and history. In

mathematics and science lessons, students often wrote their solutions on the blackboard and read aloud the steps. However, regardless of the subjects and teachers observed, there was rather limited reflective reasoning being discussed. The feedback process instead prioritised the collection of “correct” answers for students to make note of. In the process, teachers’ enacted role as “facilitators” (see Table 8.2 above) was largely about logistics. This includes copying questions, and classroom management, such as monitoring whether students were on-task and timekeeping.

In addition, teachers’ sharing of their intended purposes of various LCP activities also suggested some uncertainties about whether these activities were sufficient to support critical thinking. Firstly, as shown in Table 8.4, they considered research as a strategy for students to improve understanding and memory.

Table 8.4

Reasons for using research

LCP practice	Stated purposes by teachers	Key quotes by teachers
Research and discovery	Retain memory	“Once the student looks up the word herself, she will never forget the meaning”. (T5)
	Improve understanding	“They just go and read research and find more of what they don’t understand”. (T13)

These articulated purposes resemble findings from studies exploring East Asian learning practices, in which teachers were found to value memorisation and repetition as legitimate learning strategies for students to deepen understanding (Biggs, 1994; Dahlin & Watkins, 2000). Similarly, in low-resource settings, Guthrie (2018, p.22) noted that memorisation of basic facts and principles can be building blocks for later intellectual endeavour. However, no teachers in the current study articulated explicitly how enhanced memory and understanding would link to critical thinking.

Next, on presentation, all teachers noted most students still struggled with English. As shown in Table 8.5, they treasured it as a rare opportunity for students to practise the unfamiliar language and develop confidence by speaking in front of the class. A few teachers also noted the importance of checking answers through presentation. All teachers also used presentation as a means to ensuring students were on-task during group work:

Table 8.5*Reasons for using presentation*

LCP practice	Stated purposes by teachers	Key quotes by teachers
Talking in presentation	Practise English	“They practise English and I also correct their grammatical mistakes when they present”. (T11)
	Develop confidence	“There are some students appearing to be shy. So, there is this strategy to help them when they are presenting at least to stand in front of others”. (T8)
	Verify student knowledge	“To check if they have understood what I have taught”. (T1)
	Motivate all students to discuss in groups	“I will choose myself randomly among the group to do presentation...they can be motivated, and they can try, all of them to work”. (T2)

While there were multiple pedagogical affordances offered by presentation, it was evident that these uses were restricted to the rather basic level, given students were still learning the language. Most notably, teachers' convergence on using presentation as a means to motivating students work in groups also raised critical concern over their intrinsic motivation for learning. While the curriculum envisioned LCP to be “active, participative and engaging rather than passive” (REB/MINEDUC, 2015, p. 23), student participation in activities was not necessarily an indicator of learning being engaging. Some reflections were made on whether student motivation was influenced by the task and content assigned by teachers, and their facilitation of these (see teacher trainers' comments in Table 8.3 above). Similar to the use of research, during the interviews the linkage of these activities to the cultivation of critical thinking skills was not discussed in depth.

Lastly, Table 8.6 shows that teachers associated group work with the aim of promoting cooperation among students, especially for helping slow learners and exchanging ideas.

Table 8.6

Reasons for using group work

LCP practice	Stated purposes by teachers	Key quotes by teachers
Group work	Promote cooperation and togetherness	“That also creates in them the spirit of working together, not only in the classroom, but also, in everyday life”. (T6)
	Help slow learners	“To help each other and to deliver the teamwork spirit...in group work I want the fast learners and slow learners to help each other, so they may have a common understanding”. (T4)
	Exchange ideas	“Expect them to bring more ideas, use their minds critically to share ideas... because the group is more than two students, so there I expect many ideas”. (T9)

Given the large class sizes, all teachers shared how it was impossible to monitor the quality of student discussion in all groups, and to observe all student needs (Chapter 7, Subsection 7.4.2). This was in contrast to the curriculum expectation, which posited learning as being “personalised, addressing learners’ individual needs and expectations” (REB/MINEDUC, 2015, p. 23). As noted in Chapter 6, some students were often observed sitting in groups, but writing separately, if not off-task. As prior studies have also pointed out, tensions can occur between high and low achievers when undertaking collaborative work (Mungoo & Moorad, 2015; Tereshchenko et al., 2018), further studies are needed to explore in-group dynamics, and the learning outcomes that follow.

On the other hand, the *content-based* understanding of LCP was only scantily enacted. Apart from a few teachers who asked students to suggest the application of learnt knowledge, only three were seen using substantial portions of lesson time to converse with students using everyday examples. While participants across stakeholder groups, including all teachers, were very articulate in promoting Rwandan cultural values as a key learning outcome, this aspect was rarely seen in classroom practice. Apart from discipline, “gender balance” was the only aspect regularly captured by this research, when teachers formed groups and managed turn-taking (Chapter 6, Subsection 6.4.1). There were also a few instances, mostly observed for

English teachers, when they discussed moral values, like peace and respect with students. While Ndabaga et al. (2017) and Rubagiza et al. (2016) similarly described the gap between teachers' strong visions and pedagogical practice in promoting cultural values, it is important to acknowledge that values can be explicit in their articulation, but implicit in practice, such as being promoted through the hidden curriculum (Obura, 2003). Since this research was only focused on the classroom, the dynamics in other educational spaces may have been where the desired values were being cultivated, but unobserved.

The empirical findings revealed similar concerns as in prior studies about pedagogical reforms, in particular, in low-resource settings, being unable to provide robust evidence on improving student learning outcomes (Guthrie, 2018; Westbrook et al., 2013). This was similar for LCP in the global South, in particular, in African contexts. Schweisfurth (2011) described LCP as "stories of failures grand and small" (p.425) in the 39 country contexts she observed. Similar observations were made in Uganda (Altinyelken, 2010) and Tanzania (Sakata, 2021; Vavrus & Bartlett, 2012) among other contexts. However, like Fives and Buehl (2012), who call for avoiding a deficit approach to understanding teachers' inconsistent beliefs and practices, it is crucial to reflect on the reasons behind such gap.

8.3 The conceptual framework on teaching and learning style

To go beyond seeing LCP reform efforts as discrepancies between visions and practice, Guthrie's (2018) framework provides a helpful perspective. It theorises how different combinations of teachers and students' roles, content and reinforcement could form a variety of pedagogical styles. Developed to understand the dilemmas of classroom reforms in "developing" country contexts, Guthrie's work compares what he calls progressivism with formalism. With his distinction, the former includes a range of "learner-centred" approaches generally associated with scientific epistemology and western individualistic values, while the latter incorporates various "teacher-centred" approaches, being more associated with cultures with revelatory epistemology³⁷ as well as communal and collective values. Pedagogical styles, for Guthrie, also were strongly influenced by environmental factors, including classroom conditions, class size, time, administrative support, available funding, among others. He, thus, problematises any axiomatic style as the "best" for teaching and learning. This understanding is in line with Alexander's (2001) comprehensive definition of pedagogy discussed in Chapter

³⁷ It is defined as learning that takes place from "deities and the ancestors rather than human inquiry" (Guthrie, 2018, p.18).

3, which is concerned with socio-cultural principles, values, purposes of education, the nature of learning, knowledge, among others, beyond the act of teaching. As Guthrie's (2018) framework situates within the LCP discourse, adopting it to understand the case of Rwanda also involves introducing Alexander's discussion of pedagogy into the LCP literature.

"Teacher-centred" pedagogy (TCP), as described by participants, resembled Guthrie's (2018) definition of the authoritarian frame. This was primarily with students said to be receiving teachers' delivery of theoretical content (Chapter 5, Subsection 5.2.1). Referring to Guthrie's framework in Table 8.7, the practice observed in Rwandan classrooms had, thus, clearly moved away from the "authoritarian" frame. As evident in teachers' use of activities and content (Chapter 6), practices were more nuanced than the "rote-learning" or "cramming", described by multiple participants as key features of TCP. However, being constrained by a wide range of factors and dilemmas, as reported by participants (Chapter 7), LCP practices were seemingly unable to reach the extent desired by the curriculum and participants themselves, such as some elements in the "liberal" and "democratic" frames about students participating in learning more independently.

Table 8.7

Understanding classroom changes using Guthrie's teaching style model (adapted from Guthrie, 2018, p.208)

	Authoritarian	Formalistic	Flexible	Liberal	Democratic
Teacher	Formal, rigid norms	Formal with well-established routines and strict hierarchical control. Closed questions →	Still dominant, but uses a variety of methods and some relaxation of control. Open questions	Actively student-centred, encouraging pupil participation in decisions. Working within boundaries in learning decisions	Leader of democratically based group. Coordinator of activities.
	Enacted changes from “teacher-centred” to “learner-centred” based on the accounts and observation from Chapters 5-7				
Student	Passive recipient of teacher-defined roles in behaviour and learning. Little overt interaction.	Complicit in passive learning role, some overt interactions.	More active role within constraints defined by teacher.	Wide degree of curricular choice.	Actively participate in decisions. Increasingly responsible for own actions
Content	Teaching of rigid syllabus with closely defined content for rote learning.	Organised processing of the syllabus with emphasis on memorization.	Some flexibility in the syllabus and textbooks, attending to learning problems.	Emphasising the learning process rather than content.	Emphasising student learning at individual pace, with teacher as resource.
Reinforcement	Strict teacher control, with negative sanctions like corporal punishment.	Teacher-based negative sanctions.	More positive reinforcement backed by strong negative sanctions.	Increased emphasis on positive reinforcement	Positive response to internal motivation, with latent teacher authority

That said, Guthrie argues that formalism still has the potential for fostering student engagement for learning. For him, in contexts without compatible conditions, moving radically towards progressive approaches reflects a “confusion between teaching process and the learning product” (Guthrie, 2018, p.8). He, thus, proposes what he calls “paradigm reversal” by “reverting” to the frame of formalism, with reference to Table 8.7. In Guthrie’s (2018) words, it is legitimate and even more constructive to promote the ideal enquiry skills by “upgrading formalism” due to the compatibility with existing realities, rather than “failing to change it to progressivism” (p.163). Using his perspective, LCP reform in Rwanda could have similar potential to move forward successfully through the formalistic, rather than other frames, which were in tension with the local circumstances and beliefs. As evident in this study, learning in low-resourced classrooms meant this required teachers maintaining strong classroom management, serving as key sources of knowledge, and helping students to enhance memory with closed-ended questions.

Based on the various systemic issues observed (see Section 8.4), some participants appeared to support Guthrie’s “paradigm reversal”, by calling for more focus on upgrading the content in the existing whole-class methods. In Chapter 5, it was reported that some participants called for a depolarisation of “teacher-centred” and “learner-centred” approaches (Section 5.4). As whole-class lecturing was generally not considered as being LCP by the majority of teachers, these participants demanded a revaluation, and an upgrade of lecturing by contextualising content. That is, instead of narrowing the concept of LCP to the list of curriculum-recommended activities (REB/MINEDUC, 2015, p.23), the focus should be on recentring, by making learning more relevant and meaningful for students so that the promises of CBC can be fulfilled. This need was also considered important to meet the realities in teacher training colleges, with E12 calling for revisiting the current teaching formats:

Lecture form is not bad. Lecturing becomes bad, if you are stating facts on the board. But if you ignore the board...then you go there and converse with them, talk about cow in their own context, talk about nutrition in their own context, from their villages what they eat what they don't eat, why they don't eat it, talk about the taboos if you are teaching African settings. Women in Rwanda were not eating eggs, why?

The legitimacy of this option has similarly been suggested by comparative studies concerning learning styles in East Asian classrooms, where large class sizes are common (Biggs, 1994; Watkins & Aalst, 2014). It has also been recommended in prior studies that there should be a

recentring of LCP on learning regardless of the format (Brinkmann, 2019; O’Sullivan, 2004; Vavrus, 2009). While this study did not allow for comparing student outcomes empirically from the *activity-based* and *content-based* LCP practices, opportunities offered by the latter were revealed in the classroom observation data. As discussed in Chapter 6 (p.167-168), some students were seemingly more engaged in the process, as signaled by the fewer teacher interventions to maintain discipline and significant numbers of students making voluntary responses.

That said, the learning of cultural values and attitudes is not reflected in Guthrie’s framework, as his original interest was in comparing cultural variation in knowledge-making and intellectual enquiry, rather than contextualising the purpose of learning. Previously, scholars have critiqued the taken-for-granted concept of “learning” itself (e.g. Biesta, 2020). The Rwandan case clearly reflects a context in which learning was envisaged to serve purposes wider than literacy and numeracy, among other cognitive outcomes. It is important to be mindful of the educational priorities in Rwanda, especially the reconstruction of the value system for post-genocide psychosocial or emotional adjustment. The need for developing a culturally sensitive methodological tool to capture such dimensions will be covered in Chapter 9.

8.4 Teaching-and-learning as constrained by systemic conditions

Regardless of how LCP was conceptualised, from the systemic issues discussed in Chapter 7, it is evident that improving reform efforts requires not just changes from teachers. That is, no reform efforts can succeed without an enabling environment even in the “schools of excellence”. Similar issues have also been reported in reforming education in other low-resource contexts, including the comprehensive factors identified in the case of LCP in Uganda (Altinyelken, 2010); engaging teachers in peace-building in South African and Rwanda (Y. Sayed et al., 2018) and the CBC implementation for science subjects in Sub-Saharan Africa (T. Nsengimana et al., 2020). In a recent study by Otara et al. (2019), Rwandan teachers’ “negative” attitudes towards LCP were also found to be a result of a combination of systemic factors.

Overall, there was a strong convergence among participants on the instructional environment being the most challenging barrier of LCP. As can be seen in Table 8.8, the scarcity of pedagogical materials, large class sizes, and short lesson time have also been highlighted in prior studies conducted in Rwanda concerning the quality of teaching and learning and elsewhere.

Table 8.8

Factors related to the instructional environment

Challenges of LCP reported by participants		Key studies highlighting the influence of the specific factor	
		Rwanda	Low-resource settings
Instructional environment	<ul style="list-style-type: none"> • The scarcity of pedagogical materials • Large class sizes • Short lesson time 	(Ndabaga et al., 2017) (V. Nsengimana, 2021)	African contexts (Guthrie, 2018; Tabulawa, 2013); Kenya (Ndethiu, Masingila, Miheso-O'Connor, Khatete, & Heath, 2017)

Resources were particularly crucial, as found in Chapter 5, with the perceived student capacity in “active” learning in a traditionally top-down learning culture perceived as being enabled by access to books and the Internet, as seen in the following teacher’s quote:

When you give them the chance to do research, they get more informed, especially these days they use the machines. They read and see what is happening around the world...when you read their information, we find that they have discovered something that we didn’t know. (T5)

Unfortunately, this pre-condition of resources was not reflective of the reality even in the selected “schools of excellence”. Without printed materials, LCP activities focused on memorisation of content ahead of reasoning. Teachers and students also had to use a significant proportion of lesson time to reconstruct the textbooks in hand-written note form.

Given the large class sizes coupled with limited lesson time in both teacher training colleges and classrooms, teacher trainers and teachers were vocal about the difficulties in classroom management and providing individualised feedback for each student. These effects of class size on teaching and learning were in line with the findings in Ndethiu et al. (2017). While a study in Rwanda by van de Kuilen et al. (2020) found a third to a quarter of the students usually could not participate, teachers in my research regularly sought to fulfill their articulated commitment to involving *all* students. The time and length per response was then seen as being thinly distributed at the expense of in-depth reasoning. This also required teachers to maintain strict control of time and turn-taking to avoid inaudibility from students talking simultaneously, instead of allowing free interaction.

LCP was further hindered by various policy issues. Table 8.9 shows that English as a medium of instruction is a lingering barrier to learning in Rwanda as it also is among other post-colonial African contexts. Under LCP, English became an amplified challenge for both teachers and students, as the latter were expected to engage in their own research and group discussion in the language. As the examination questions remained mostly content-based, teachers therefore reluctantly remained as the sources of knowledge, despite the official call, and their own will to shift away from such a role.

Table 8.9

Factors related to policies

Challenges of LCP reported by participants		Key studies highlighting the influence of the specific factor	
		Rwanda	Low-resource settings
Policy	English as a medium of instruction unfamiliar for teachers and students	(Samuelson & Freedman, 2010); (Niyibizi, 2015); (Milligan et al., 2016); (Ndabaga et al., 2017);(van de Kuilen et al., 2020)	Post-colonial African contexts (Brock-Utne, 2000a; Clegg & Simpson, 2016; Ouane & Glanz, 2010)
	Examination questions not aligned with LCP visions	(Ngendahayo & Askell-Williams, 2016).	African contexts (Adriaan Verspoor, 2008); Tanzania (Sakata, 2021)
	Top-down and rapid policy change	(Mbabazi & Thomas, 2004) (Pearson, 2014); (Ngendahayo & Askell-Williams, 2016); (Sibomana, 2016)	Malawi (Mkandawire et al., 2018); Zimbabwe (Sibanda & Blignaut, 2020); and Namibia (O'Sullivan, 2004).

However, even though common challenges were felt, in the interviews no participants indicated any concrete opportunities for making feedback to policymakers. A few teacher trainers pointed out that they were not consulted until the policy was made. This finding, as indicated in Table 8.9, was in line with prior studies in Rwanda and elsewhere, such as in Malawi (Mkandawire et al., 2018); Zimbabwe (Sibanda & Blignaut, 2020); and in Namibia (O'Sullivan, 2004) regarding teacher involvement in policies. Teachers in Rwanda have been described as being “seen but not heard” (Mbabazi & Thomas, 2004), and similar situations were confirmed in subsequent studies (Ngendahayo & Askell-Williams, 2016; Pearson, 2014). Sibomana (2016) explained that Rwandan teachers remain “passive adopters” of policies, or at best, as research informants for local lecturers. He added that teachers’ experiences with the old curriculum had

not been sufficiently valued for them to be utilised to inform the development of CBC, and hence, most practical challenges remained unresolved.

Despite the range of system issues in Chapter 7 being shared by at least a few participants per stakeholder group, a key dissonance amongst was about who should bear more responsibility in the implementation of LCP. Among the officials, the most telling comments were about teachers' misunderstanding and practice. As shown in Table 8.10, this has also been raised as a major concern in the literature, where teachers have often been found to have limited understanding of pedagogical concepts in Rwanda and other contexts with similar curriculum reform efforts. Nykiel-Herbert (2004) strongly asserted that LCP "can become a destructive weapon if practiced by teachers lacking the necessary conceptual knowledge and practical skills" (p.262).

Table 8.10

Factors related to teachers

Challenges of LCP reported by participants		Key studies highlighting the influence of the specific factor	
		Rwanda	Low-resource settings
Teacher	Understanding of the pedagogical approaches	"Learner autonomy" (Uworwabayeho, 2009); inquiry-based learning (Mugabo, 2015); LCP (Ndabaga et al., 2017; Otara et al., 2019)	South Africa and Namibia (Chisholm & Leyendecker, 2008); South Africa (Bantwini, 2010; Jansen, 1998; Nykiel-Herbert, 2004); Zambia (Kabombwe & Mulenga, 2019).
	Low morale (low salary, heavy workload, long working hours)	(Nzabalirwa & Nkiliye, 2012); (Muvunyi, 2016); (Ndabaga et al., 2017)	Anglophone Africa (Mulkeen, 2010)
Teacher training	Limited frequency of training; LCP not demonstrated as a pedagogical approach during training	(Ndabaga et al., 2017); (Otara et al., 2019)	Ethiopia (Dejene et al., 2018); Malawi (Mtika & Gates, 2010); Ghana (Akyeampong, 2017)
School leaders	Inspection criteria of LCP; support for teachers to practice LCP	(Uworwabayeho et al., 2020); (Karareba, Clarke, & O'Donoghue, 2018)	Various West African contexts (T. Bush & Glover, 2016)

Recognising the direct influence of teacher training on teachers' understanding of LCP, participants in Rwanda regularly discussed the need for more training opportunities. However,

instead of being given the theoretical understanding of LCP and the need for it to be implemented, teachers wished to have further reflection:

They should bring, like a technique and we comment on that technique. What are the advantages of this, or what are the disadvantages? When do we use this? So that all the teachers get the common understanding. (T12)

There were also frequent wishes for LCP to be demonstrated by trainers in practice. As shown in Table 8.10, the importance of modeling LCP by teacher educators has been similarly highlighted in studies in Malawi (Mtika & Gates, 2010) and Ghana (Akyeampong, 2017). The difficulty remains, for as some interviewed officials and teacher trainers indicated they also had limited prior exposure to LCP. This quote on this matter came from one official:

The question is where do they learn about CBC?...here people have no foundations, from the top level to the ground level. (P10)

This was also felt by some teachers regarding school leaders, who were also new to CBC and LCP. The importance of instructional leadership to support teachers in implementing desired practices has also been noted prior studies in Rwanda (Karareba et al., 2018; Uworwabayeho et al., 2020) and various contexts in West Africa (T. Bush & Glover, 2016).

Beyond the focus on teachers, other studies have highlighted that educational reform is not a social engineering event on the individuals, but rather, a complex process of change, which requires a system-wide coordination (Fullan, 2007; Goodson, 2000). This perspective was reflective of teacher trainers and teachers' accounts in the Rwandan case. While teacher trainers also had critical comments on teacher understanding of LCP, as already shown in Table 8.3, they pointed to motivation as an impactful factor on teachers' mindset and willingness to engage with the reform. For instance, a teacher trainer said the following:

They are not giving an effort to do that, because of the demotivation...teachers are given not only a poor life, but miserable life. As I said, learner-centredness needs a motivated person... who doesn't have personal motivation cannot teach in that class. Just give them summary and notes. (E12)

While teachers invited to this study had relatively better financial and resource support as they were based in “schools of excellence”, most raised the issue of low morale, which they attributed to the low salary, overwhelming workload and challenging instructional environment.

They, thus, felt there was gap between their wish for the desired goals, and the support they could give to students for achieving them through LCP.

Among teachers, a concern that was discussed less in-depth by other stakeholder groups was about student demotivation in taking part in LCP activities. As shown in Table 8.11, this is a relatively under-researched theme in Rwanda. Prior studies in Botswana (Tabulawa, 2004) and Tanzania (Sakata, Candappa, & Oketch, 2021) have reported that LCP practice is negotiated jointly by teachers and students.

Table 8.11

Factors related to students

Challenges of LCP reported by participants		Key studies highlighting the influence of the specific factor	
		Rwanda	Low-resource settings
Student	Low motivation and capacity to engage in learning	(Uworwabayeho, 2009)	Botswana (Mungoo & Moorad, 2015; Tabulawa, 2004); Tanzania (Sakata et al., 2021)
Culture	The social hierarchy and cultural norms that define the roles youths and elders	(Rutayisire et al., 2004)	Oral culture (Brock-Utne, 2000a); India (Brinkmann, 2019); Tanzania (Sakata et al., 2021; Vavrus, 2009); Lesotho (Khoboli & O'Toole, 2011).

While some teachers attributed the minimal student involvement to the policy of automatic promotion, most teachers experienced LCP working better with those in upper secondary levels, high achievers, and those with better capacity in terms of resources and English proficiency. This challenge was observable when teachers occasionally probed for elaboration, only very few students managed to complete unscripted answers in full sentences (Chapter 6, p.155-156). While some studies have also highlighted the cultural tension in changing pedagogical identities among teacher and student, as was the case in Tanzania (Sakata et al., 2021; Vavrus, 2009), this theme was generally not reported as a major barrier in the current study. A few participants had experienced students staying silent and had seen some gendered patterns in classroom participation; however, the majority of teacher trainers and teachers believed students would take part in LCP, if they were motivated. This was corroborated with teachers' practice of inviting as many students as possible to talk or write on the blackboard. Similar to Khoboli and O'Toole's (2011) findings in Lesotho, teachers often would have preferred

structured learning sequence and less “noise”, but this was mostly due to environmental constraints rather than any cultural hierarchy.

While participants across stakeholder groups also felt that parents had to share responsibility for motivating students, which was in line with prior study findings, some teachers and officials had experienced parents having limited capacity or attributing the responsibility of learning to schools and teachers only. The involvement situation from prior studies’ findings is illustrated in Table 8.12 below.

Table 8.12

Factors related to parents

Challenges of LCP reported by participants		Key studies highlighting the influence of the specific factor	
		Rwanda	Low-resource settings
Parents	Financial contribution to schools; limited involvement in students’ learning	(Tabaro & Uwamahoro, 2020); (Kabarere, Muchee, Makewa, & Role, 2013); (Ndabaga, 2021)	Kenya (Metto & Makewa, 2014)

These perspectives regarding parental involvement have also been found in other studies in Rwanda (Ndabaga, 2021; Tabaro & Uwamahoro, 2020) and Kenya (Metto & Makewa, 2014). On the other hand, two teacher trainers stressed that teachers had to remain responsible for cultivating intrinsic motivation in students, which for them was a pre-requisite for student involvement in learning. They both recommended valuing the *content-based* understanding of LCP.

This chapter has discussed how LCP was perceived and localised in the Rwandan context. As the practice was only implemented to a certain extent in terms of activities and content, further questions remain as to whether these changes were sufficient to fulfil the desired reform goals, in particular, in cultivating holistic competencies. To take the reform agenda forward, reflections were made by drawing upon Guthrie’s (2018) framework. Possibilities were identified from enacting LCP through content, which was deemed compatible with local circumstances, rather than targeting progressive changes beyond the capacity of teachers and the system. As teachers need to be empowered by an enabling environment to enact LCP, in the next chapter, I will conclude the study by considering the implications of the findings for Rwanda in terms of future teacher training and policy support. This will be followed by discussion of the implications of the findings for international research on LCP and classroom

reforms. Lastly, the limitations of the research and emerging questions from the current study's findings for future research to address will be put forward.

CHAPTER 9 CONCLUSION

This research has involved exploring the implementation of “Learner-centred” Pedagogy (LCP) in the Rwandan context. While issues around educational reform have been widely discussed in low-resource contexts, most studies have relied on an evaluative lens to examine teachers’ practice. This risks implicitly adopting a deficit thinking on the non-happening of idealistic practices. While not denying local circumstances had constrained teachers’ enacted LCP in Rwanda, a critique dominantly resting on teachers risks misrepresenting the nuanced realities. Hence, this study has sought to provide understanding of classroom reform processes with an in-depth engagement with local actors’ perspectives. Using a qualitative approach, three research questions were explored in the study. The key findings are briefly summarised in what follows.

RQ1 What are the understandings of LCP reform efforts among different stakeholders in the Rwandan education system?

As officialised by the reform agenda in the competence-based curriculum (CBC), LCP encouraged participants to reflect on the focus of learning, purposes of education, and roles of students and teachers (see the summary in Chapter 8, Table 8.1). Different from teacher-centred pedagogy (TCP), which has been described as focusing on transmitting academic knowledge, LCP is perceived as an approach to help students acquire holistic competencies for real-life application. On the expected roles played by teachers and students in the Rwandan context, there was limited within-group convergence and rather, participants across stakeholder groups shared two major conceptualisations of LCP. The majority upheld an *activity-based* understanding, which was about “active” student participation in different learning activities, with teachers serving as “facilitators”. Other participants, based on the reflections on teachers’ enacted practice and local circumstances, preferred a *content-based* understanding of LCP. They welcomed multiple formats, including wholeclass teaching, but called for them to be strengthened by connecting content to everyday reality. This would help to recentre the focus on improving learning, whilst also supporting the wider ideals envisioned by the reform efforts.

RQ2 How do teachers in Rwandan secondary schools translate the understandings of LCP into classroom practices?

There was no significant school-based difference identified from the study. Across subjects, the enacted practice of LCP in the selected Rwandan schools was more consistent with the

activity-based understanding of the concept. All teachers regularly invited students to participate in learning through research, group work and presentations, among other activities. Divergence was clearly identified across subjects. While the English subject had relatively more open-ended questions assigned, those in history, mathematics and the sciences were generally more of a close-ended nature. Influenced by time constraints, large class sizes, and student capacity, the contribution from students across subjects was mostly about providing short responses as well as writing solutions on the blackboard and reading them aloud to teachers. The observed feedback process prioritised collecting the same and “correct” answers over reasoning. With the lack of pedagogical materials, most lessons ended with teachers assisting students in copying revision notes. On the other hand, the *content-based* understanding of LCP was only observed substantially for three teachers, when they discussed contextually relevant examples with students. The key focus on holistic competencies comprising Rwandan cultural values and attitudes, despite being valued by all participants, was also only briefly captured from a few English teachers’ practice.

- RQ3 What are the enablers for and challenges in using LCP as promoted in Government of Rwanda’s reform efforts?

Rather than speaking about enablers, government officials, teacher trainers and teachers converged on expressing dissatisfaction with reform efforts. Challenges were widely discussed in relation to various themes, including the instructional environment, policies, teachers, teacher training, school leaders, students and parents. The major dissonance was on who should bear the most responsibility to ensure learning took place. While government officials articulated relatively more about teacher-related issues, teacher trainers and teachers argued that support fell short for the latter to enact their ideal classroom practices. In Chapter 8, guided by Guthrie’s (2018) framework of teaching style models, further reflections were made on moving the reform agenda forward. Despite the systemic issues present leading to LCP being enacted less progressively than desired by local actors, potential was identified for revising the existing formalistic practice. That is, apart from conceptualising LCP through *activities*, nuanced changes in terms of linking the *content* to everyday life was deemed valuable. This was about recentring the focus on learning so that the wider objectives valued in CBC could be achieved.

Based on the findings, I now discuss the overall contributions of this research. Firstly, Section 9.1 considers the national implications for the Rwandan context in terms of policy

recommendations and teacher training. Section 9.2 discusses the theoretical and empirical contributions of this work to international scholarship on LCP. Finally, the limitations of the study are covered in Section 9.3, with future avenues for investigating LCP and related classroom reform efforts in Rwanda and beyond also being proposed.

9.1 Implications of the study at the national level for Rwanda

As discussed in Chapter 8, despite the challenges identified in teaching and learning not being particularly new, prior studies on Rwanda were primarily survey-based and largely focused on the evaluation of teaching practice. In this regard, the retention of the “traditional” styles of “teacher-centred” teaching (Nsengimana et al., 2017); teachers’ attitudes towards LCP (Otara et al., 2019); and teachers’ practice of LCP (Schendel, 2016; van de Kuilen et al., 2020) have received attention in prior research. Often, teachers were portrayed as the barrier in reform efforts, such as their “resistance to change towards CBC approaches” (Ndihokubwayo, Nyirigira, Murasira, & Munyensanga, 2021, p.91). There have been; however, very few studies exploring teachers’ in-depth understanding of LCP. Even if teachers have been found using LCP activities, studies have had relatively little engagement with their perspectives to understand the intended purpose of such a change. This study has addressed this gap by engaging with reform processes from the perspectives of teachers, teacher trainers, and government officials.

9.1.1 Key recommendations for policy

In this study the teacher-deficit discourse on LCP has been problematised. When the idealistic version of LCP was confronted by systemic issues, there were inconsistencies observed between perceptions and practice implemented in Rwandan classrooms. While not denying the knowledge and skills of LCP possessed by teachers and teacher trainers is an area for improvement, this is only one of the many dimensions to be addressed. Firstly, it is important to legitimise LCP being conceptualised wider than simply employing prescriptive activities and hence, consideration should be given to the following.

- Enabling teacher trainers and teachers to use a variety of flexible LCP practices compatible with varying learning objectives and classroom realities.

As indicated in Chapter 8, there is a strong recommendation from both the literature and local actors to recentre the focus of effective pedagogical practices on *learning* over formats. If LCP is to commit to quality education for *all* in all types of school, there is a need to create the space

for teachers to align their classroom practice with learning objectives, student capacity, and the material conditions. While the curriculum definition of LCP states that the list of activities is about “including but not limited to” (REB/MINEDUC, 2015b, p.23), this recognition will also need to be aligned with criteria being collectively used by school leaders, teacher trainers and ministry officers in their inspection and/or supervision of teachers.

Next, any teaching and learning approach requires crucial material support:

- Improve the availability of pedagogical materials, infrastructure, and ICT resources for teacher trainers, teachers and students.

This study’s findings have shown that, for teachers to enact their intended practice of LCP, they need to be empowered by a conducive pedagogical environment. This will also enable students to take initiatives in independent learning activities and contribute ideas in discussions.

Regarding the *content-based* understanding of LCP, textbooks can help teachers provide more relevant examples to students:

- Contextualise textbook content to help teachers and students relate subject knowledge to their everyday experiences in the Rwandan context.

When providing textbooks, it is important to ensure further contextualisation of subject content using everyday examples, which will also be helpful for motivating students to engage in learning. This support is further dependent on the medium of instruction, which is another crucial area evident from the study outcomes:

- Support CPD programmes not only around LCP, but also, using English as the medium of instruction for second language learners.

English proficiency has been shown to be a pre-requisite of learning under LCP, with both academic and social interactions requiring teachers and students being comfortable with the language. Since English is stipulated as the MOI from primary one onwards (REB, 2020a), there is a strong need to support teachers not only in mastering English, but also, in providing them with pedagogical strategies to help students learn in an unfamiliar language.

9.1.2 Key recommendations for continuous professional development

Apart from policy support, future professional development opportunities will also be crucial for both teacher trainers and teachers to enhance teaching and learning practices. Similar to the

first point raised in the policy recommendations, there is a need to diversify the practice of LCP for meeting specific needs:

- Reflect on LCP as a wider approach with a variety of teaching and learning strategies.

Given the varying learning objectives, student capacity and classroom realities, future training could benefit from having space for trainers and teachers to reflect on the legitimate use of different methods. While nearly all participants acknowledged there were feasibility issues in LCP activities, such as research, group work and presentations, only very few participants mentioned lecturing as a legitimate and helpful alternative.

On the *activity-based* understanding of LCP, there is a need to clarify its theoretical evidence:

- If constructivism is considered as constituting the theoretical backbone of LCP, trainers could reflect with teachers on the roles as “facilitators” in LCP activities, and how such facilitation could support learning in line with the envisioned goals.

Given the critique from teacher trainers on LCP activities (Chapter 8, Section 8.2), future teacher training could clarify the theoretical origins of “facilitator” and its rationale in enhancing learning. As some teachers indicated their understanding of LCP was mostly through theoretical descriptions, if constructivist concepts are deemed appropriate, it is also important for trainers to demonstrate “facilitation” beyond logistics and classroom management. This shared understanding could then be adapted to enable learning in culturally appropriate ways in Rwandan classrooms.

In addition, students will also require preparedness to engage meaningfully in LCP activities:

- Develop strategies to help students acquire the foundational knowledge and skills for undertaking independent learning activities, including research, presentations, and group work, among others.

If students are expected to take up more responsibilities for learning, there is a need to explore pedagogical strategies to support them undertaking independent or group activities. This is to ensure their participation is not merely a requirement, but also, helpful for acquiring the desired competencies.

On the *content-based* understanding of LCP, more everyday examples could be co-created by trainers and teachers in their subjects:

- Develop more contextualised examples in each subject for students to situate content knowledge in their everyday experiences.

Building on the suggestions from participants (Chapter 5, Subsection 5.3.2.2), having relatable content could potentially motivate students towards learning and this is particularly crucial for abstract topics. This could help to enhance learning when whole-class teaching remains important for contextual needs.

9.2 Implication for international research on LCP and classroom reforms

At the international level, this study contributes to the large volume of scholarly literature concerning the use of educational reform to address the lingering “learning crisis” (World Bank, 2018). By focusing on pedagogical practice in classrooms, this work has provided nuanced understanding of the processes of change. Firstly, it has shown that there is a need to make a clearer conceptual distinction between LCP as a policy, as a theoretical ideal and as enacted practice. This distinction is crucial for seeing beyond it being labelled as a “western imposition” (Tabulawa, 2013), which downplays the agency of local actors when borrowing policy (Steiner-Khamisi, 2012). The findings suggest that concepts can be reappropriated or indigenised, whilst still having the potential for bringing valuable changes. The study findings further challenge the oversimplified evaluation of reform as “successful” or “failed” in terms when desirable changes have or have not taken place. Instead, it highlights the importance of going beyond *what* practices are used. Beyond the visible level, there is a need to reflect critically on *how* and *why* these practices are used by teachers to support which intended purposes.

Given teachers’ practice may not always corroborate with their perception, it is important not to confine the understanding to their individual knowledge and skills. Rather, through adopting an explorative perspective that takes into account teachers’ perspectives and surrounding realities, this could provide valuable understanding of the underlying tensions and expectations. This study has demonstrated this approach by it being acknowledged that teachers’ enacted practice is not only based on their own perception, but also, a negotiated outcome with the local conceptualisation of learning, engagement with other educational stakeholders and the material conditions, among other policy and socio-cultural realities. The material conditions have again been shown to be central to pedagogical practice, rather than just being a peripheral factor (Singal et al., 2018; Vavrus & Bartlett, 2012).

While the LCP literature has typically focused on classroom activities as signs of LCP in implementation, as Schweißfurth (2013, p.146) has pointed out, standards are often more abstract and open to multiple interpretations. The *content-based* approach suggested by some Rwandan participants of practising LCP by linking subject content to everyday realities has provided an example of a wider conceptualisation of this practice. The nuanced understanding opens up more possibilities to identify micro-changes as important instances of locally responsive ones, despite the challenging circumstances. These could serve as starting points for improving teaching and learning. Lastly, such a focus on content would address the scholarly concern on the often taken-for-granted, and yet critical question, on what knowledge to teach (Young, 2008, 2013) and the purpose of learning (Biesta, 2020a). These are essential questions if the general promise of education is to offer quality and also, inclusive learning for all.

9.3 Implication for methodology and future research

Lastly, on methodological implications, this study has shown the value of using a qualitative approach with the deviant “best” case sampling. Teachers invited from the four “schools of excellence” still encountered structural barriers, and yet, their rich narrative has enriched the existing knowledge about classroom reform processes in terms of how teachers could work hard to implement and engage with the reform directives. It was from their willingness to participate that I was able to learn about the nuances and local realities, instead of superficially repeating the challenges that have already been reported elsewhere. Moreover, by using a vertical case study design, the different and often contested perspectives uncovered between stakeholder groups has contributed to the deeper understanding of the complex nature of educational reform.

Next, my in-depth reflection on the LCP reform in Rwanda was not simply a result of using qualitative approaches or the abovementioned sampling technique. Rather, it involved a deep emotional approach to fieldwork with the unflagging support from a local Rwandan supervisor. This supported a dynamic process of navigating a positionality beyond an insider-outsider dichotomy (Dwyer & Buckle, 2009). While emotions have often been seen as a limitation or researchers’ biases (Norris, 1997), such an approach enabled me to stay close to the local community, and reflect on the everyday emotions as well as realities, as *experienced*. Similar to Copp (2012), this is not to claim the researcher could share the exact same feeling as participants. Rather, reflecting on emotions was a process of comparing different worldviews, which helped to interpret local realities. For instance, when teacher trainers frequently shared

their “frustration” after supervising teachers, it was less about teacher performance, but often as a self-critique of their own realities at the university. This permitted a self-reflexive process in my thinking and the interpretation of data. As African scholars problematise the deficit-thinking in western literature on the “others” and recommend an ethical partnership with local institutions in recognition of post-colonial research practices (Chilisa, 2012b, 2013), my collaboration with the local supervisor has provided an example of how outsiders can attempt critically to appreciate different knowledge systems.

9.4 Limitations of the study

Various limitations were also found in this research. My study was only able to provide a snapshot of some relatively visible pedagogical practice. Within the capacity of doctoral research, this study only managed to engage with teachers from four subjects for a limited period. I was unable to have a more specific focus on subject content. Also I could not make any gender-specific analysis, and yet teachers’ gender is evident to be influential in student learning (Lee, Rhee, & Rudolf, 2019). Moreover, the classroom observation protocol only worked to a certain extent given the audibility issue. In large classrooms, with above 45 students and the teacher as a sole observer, I was often only able to attend to the explicit or visible changes, rather than the implicit aspects of teaching. There is a need to look for evidence in terms of how teachers incorporate Rwandan cultural values and attitudes, among other desirable foci on teaching and learning. This will help to understand practice under a culturally sensitive lens.

Lastly, there is also a need to recognise that learning, especially under LCP, often goes beyond the classroom space. In the East Asian experience, the teacher-student and peer interactions outside classrooms have been identified as central elements of learning, which influence the pedagogical practice in-class (Biggs, 1994). In Rwanda, apart from what teachers called “prep(aration) time”, school clubs (REB, 2020a), and home-grown initiatives also served pedagogical purposes. Notably, all teachers and students took part in *umuganda* (the monthly community service) and *itorero* (a revitalised form of traditional education) regularly at schools and in their respective communities. T6 expressed that these were key venues for teachers to train students in “how to support themselves and the country”. Dialogue was especially appreciated on those occasions, as E5 explained, “we develop that mindset getting together discuss your issues and find solutions yourself”. Hence, there is a need for a methodological approach that is mindful of the dynamics in these various learning spaces to gain fuller understanding of the teaching and learning processes.

For future research, there are several questions emerging from this study, which can be particularly valuable for Rwanda or similar contexts. Firstly, given teacher trainers play important mediating roles in enabling LCP reform and this study was only able to engage with their perspectives, hence, future studies could engage with their practice:

- What are the instances of *activity-based* and *content-based* practices of LCP in teacher training?

Despite *content-based* understanding of LCP being suggested, there were only limited examples observed of what this might look like in practice beyond the subject of English. The focus on positive instances can provide important basis for peers and teachers to reflect upon and adapt to their own classroom practice.

Moreover, while students played important roles in LCP, especially during independent learning activities, this study was only able to capture very limited visible and audible responses in classrooms. Student voice in Rwanda remains an under-researched area. Apart from William's (2018) work on student aspiration, based on the literature accessible in English, the African Education Research Database³⁸ and the Rwanda Journal of Education, it would appear that there has been no internationally accessible study on Rwandan student perception towards teaching and learning practice. Future research engaging with this dimension would prove valuable, addressing such as the following:

- What happens during student activities? What are the in-group dynamics when students engage in group work?
- What are the different student responses towards LCP activities? What factors contribute to these varied responses?
- How can students be supported to benefit more from the learning opportunities offered by LCP?

Teaching and learning will continue to be at the heart of quality education. As international efforts continue, with the desire to improve classroom practices and adapt learning to emerging needs, it is crucial to take this enquiry forward. Ultimately, regardless of the models or styles

³⁸This database focuses on educational research in sub-Saharan Africa conducted by African scholars, and can be accessed at <https://essa-africa.org/AERD>. The initiative is developed by the Research for Equitable Access and Learning (REAL) Centre, Faculty of Education, University of Cambridge, in partnership with Education Sub-Saharan Africa (ESSA).

in use, it is hoped that the teaching and learning process will become engaging and meaningful for all actors involved. Hence, it is hoped that this thesis will join the collective efforts to provide constructive and contextually relevant suggestions to improve policies, teacher training, as well as classroom practices for benefiting students and beyond. The end here has marked the beginning of my lifelong journey to learn more about education from multiple voices, contexts and experiences.

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Appendix A: Key Rwandan post-genocide educational policies in chronological order

Year	Equitable access	Teaching and learning	Economic development	Peacebuilding
1998	By 2000, raise primary-school attendance to 80%, and secondary-school admissions to 30%			
1999		The establishment of Kigali Institute of Education (KIE), currently the University of Rwanda-College of Education (UR-CE)		The establishment of National Unity and Reconciliation Commission (NURC) to promote social cohesion through various home-grown solutions
2000	Vision 2020: to develop “a united, democratic and inclusive Rwandan identity”, “transform into a middle-income nation”, and “construct a united and competitive Rwanda both regionally and globally”			
2003	Education Sector Policy: (1) With reference to UPE and EFA, overcoming historical legacies of educational inequity; (2) peacebuilding for national unity and reconciliation; and (3) cultivating skilled human capital for development and poverty reduction	UNICEF “child-friendly school” model		
	ESSP 2004-2008: reassures commitment to UPE, EFA and MDGs		ESSP 2004-2008: “enhancing Rwanda’s human resource through the development of a learning society”	
2007				The establishment of National Itorero Commission
2008	The introduction of: 9YBE as the foundation for human resource development; Girls Education Policy; and Special Needs Education policy	MOI Switch from French to English	Economic Development and Poverty Reduction Strategies I (2008-2012)	Aegis Trust began piloting peace education through participatory pedagogy
	ESSP 2008-2012: UPE expands “quality” to also addresses repetition and drop-out rates besides enrolment number		ESSP 2008-2012: Curriculum to incorporate a number of issues crucial to economic development poverty reduction.	ESSP 2008-2012: Curricula promotes positive attitudes towards gender equity, HIV/AIDS, social inclusion, population issues, unity, peace and reconciliation
2010	ESSP 2010-2015	ESSP 2010-2015:		

	Improving completion and transition rates, reducing dropout and repetition in basic education	Improve educational quality including LCP is officialized in the policy for the first time for schools and teacher trainings
	Ensuring equity within all fields and throughout all levels of education and training through specific interventions to raise performance of girls and learners with special needs, including orphans and vulnerable children,	
2013	ESSP 2013-2018: 9YBE expands to 12YBE	ESSP 2013-2018: improving the quality of education and training ESSP 2013-2018: strengthening the relevance of education and training to meet labour market demands Economic Development and Poverty Reduction Strategies II (2013-2018)
2016	Implementation of school-feeding programme	Competence-based curriculum: officially stipulates a “learner-centred” approach to education that promotes a holistic combination of knowledge, skills, values and attitudes
	Adoption of the ICT in education policy	
2017	Revised special education and inclusive education policy	ESSP 2018-2013: National Strategy for Transformation 1 lists English as MOI among teachers competencies in subject content and pedagogy as priority areas
2019		Terminates automatic promotion
2020		Shifts MOI to English from P1 onward

Appendix B: The background of teacher participants

School	Teacher pseudonyms	Subjects taught	Gender	Years of experience	Countries of teaching experience	Number of schools taught	level
A	T1	English; English literature	F	13	Rwanda	1	O&A
	T2	Mathematics	M	21	DRC, Rwanda	4	O&A
	T3	History; French	M	30	DRC, Rwanda	3	O
	T4	Chemistry	M	9	Rwanda	1	O&A
B	T5	English; English literature	F	39	Kenya, Uganda, Rwanda	5	O&A
	T6	Maths	M	10	Rwanda	2	O&A
	T7	History; General studies & communication	M	8	Rwanda	3	O&A
	T8	Chemistry	M	12	Rwanda	1	O&A
C	T9	English; English literature; Swahili	M	6	Rwanda	3	O
	T10	Maths	M	20	Rwanda	2	O&A
	T11	History; General studies & communication	M	6	Uganda, Rwanda	1	O&A
	T12	Chemistry	M	5	Rwanda	1	O
D	T13	English; English literature; General studies & communication	M	15	Rwanda	1	O&A
	T14	Maths; Physics	M	7	Rwanda	3	O&A
	T15	History	M	12	Uganda, Rwanda	5	O&A
	T16	Biology	M	5	Rwanda	1	O

*O = Ordinary level (Secondary 1-3), A= Advanced level (Secondary 4-6)

Appendix C: Sample interview schedule

Government officials (20-30mins):

Themes	Questions	Prompts
Background and experience	1. How long have you been involving in Rwandan education policymaking? What were/are your major responsibilities?	
The role of education	2. From your perspective, what are the different purposes of education? 3. What are some important values that schools should promote in education nowadays? 4. Any examples of how schools can promote ____ (that you have just mentioned)?	“Basic values of the nation” (p.3), learning, skills, post-genocide needs
Rationale of LCP	Since 2016, we have seen the introduction of the competence-based curriculum to support a “learner-centred” education. (Rwanda Education Board 2015, p.4, 23-24) 5. From your perspective, what motivates the curriculum reform?	Global reform, 2013 Harmonised Curriculum Framework for the East African Community (p.1)
	6. From your perspective, what do you understand by “learner-centred” pedagogy (p.23)?	changes in curriculum, purpose of education, roles of teachers, role of students, teaching methods, assessment strategies
	7. According to your views, what are the most central reasons leading to the introduction of LCP?	
	8. Where did the ideas or theories supporting LCP come from?	National commitment, role of international agencies, education theories
	9. Could you give some examples of how it is different from the approach used in the previous curriculum?	
	10. Could you please also provide some examples of “active” (p.4),	

	“participatory and interactive” methods (p.23)?	
	11. Why is using such an approach important for the Rwandan context?	Student benefits, growth, social cohesion
Perception on LCP practices	12. Have you observed any classroom teaching after the introduction of CBC?	
	13. How would you describe the “best” teacher you observed? What impressed you the most?	teachers’ characteristics, activities, methods, teaching resources
	14. What suggestions would you give to him/her to make further improvements?	
	15. What do you think is the role of students in this teacher’s classroom?	In-class, after-class
Process of change	Specifically in-relation to encourage the use of LCP, 16. What policies have changed to help teachers to adapt to this change?	Teacher recruitment, ICT, salary, CPD
	17. Could you give some examples of new resources which are developed to support this new curriculum?	
	18. What are the factors that are successfully supporting the use of the “learner-centred” pedagogy?	Students, teachers, schools, policy, resources, infrastructure
	19. What factors have hindered the use of the “learner-centred” pedagogy?	
	20. In some countries learner-centred reform has been regarded as an imposition of international aid organisations or even as being in opposition to the wider socio-cultural norms. what do you think about such views in the context of Rwanda?	
recommendation	21. From your perspective as a policymaker, what more can be	

	<p>done to further promote the use of “learner-centred” pedagogy?</p> <p>22. Is there anything else you would like to add?</p>	
	<p>23. Thank you very much for your time</p>	

Teacher trainers (40-60mins)

Themes	Questions	Prompts
Background and experience	<p>1. How long have you been a teacher trainer for? Were you a teacher before? If so, for how many years?</p> <p>2. What motivated you to become a teacher trainer?</p>	
The role of education	<p>3. From your perspective, what are the different purposes of education?</p> <p>4. What are some of the important values that schools should promote?</p> <p>5. Any examples of how we can promote _____(that you have just mentioned)?</p>	“Basic values of the nation” (p.3), learning, skills, post-genocide needs
Understanding of the notion “learner-centred”	<p>LCP in the GoR reform has become very popular:</p> <p>6. From the teacher trainer’s perspective, what do you understand by “learner-centred” pedagogy? (probe: how does this new pedagogy help achieve the main of education you outlined earlier?)</p> <p>7. For you, what are the 3 most important characteristics associated with LCP as promoted by the Rwandan government?</p> <p>8. How is it different from the previous approach?</p> <p>9. In the curriculum framework here, it recommends the teaching process to involve “active” (p.4), “participatory and interactive” methods (p.23). Could you give examples of what these methods might be?</p> <p>10. In your opinion, why is the new pedagogy important for the Rwandan context?</p> <p>11. What are the changes in how students are assessed?</p>	changes in curriculum, purpose of education, roles of teachers, role of students, teaching methods, assessment strategies
Subject-specific use of LCP	12. As you provide training for [English/Maths/History/Science] teachers, how would you recommend	

	<p>teachers to use LCP when they teach [their subject]?</p> <p>13. How would you compare using LCP specifically in [the subject] with the previous approach?</p>	
Perception on “learner-centred” practices	<p>14. Thinking about the teachers you teach or interact with, what are some of their strengths and weaknesses in practicing learner-centred pedagogy? Could you tell me more about ___? Why do you consider ___ as a strength/weakness?</p> <p>15. How would you describe the “best” teacher you have observed? What are some of his/her characteristics? Did he/she use some teaching approaches that really impressed you?</p>	teachers’ characteristics, activities, methods, resources
Process of change	<p>16. In your opinion how do teachers respond to the call for new teaching approach?</p> <p>17. From your view, what are the factors that are successfully supporting the use of the new pedagogy?</p> <p>18. What are some factors hindering the use of the new pedagogy?</p> <p>19. Have you got comments from teachers on the use of “learner-centred” pedagogy?</p> <p>20. I heard that there are selected government schools known as “schools of excellence”. In terms of using LCP, how would you compare those to other schools?</p> <p>21. In some countries learner-centred reform has been regarded as an imposition of international aid organisations or even as being in opposition to the wider socio-cultural norms. What do you think about such views in the context of Rwanda?</p>	Students, teachers, schools, policy, resources, infrastructure
recommendations	22. Reflecting on the training workshops that you attended to promote the use of learner-centred pedagogy, did you find	Theory, practice, apprenticeship, time, location, frequency, aspects of LCP

	<p>anyone particularly effective? Any examples of what made it effective?</p> <p>23. Did you collect feedback from teachers who attended the workshops? Could you share with me their views?</p> <p>24. Do you have any suggestions for improving the teacher training programmes?</p> <p>25. Is there anything else you would like to add?</p>	
	<p>26. Thank you very much for your time.</p>	

For teachers (60 minutes)

Themes	Questions	Prompts
Background and experience	1. How long have you been a teacher for? How long have you been teaching in this school?	
	2. Which subject(s) do you teach and at what level(s)?	
	3. What motivates you to become a teacher? Did you consider other career options at that time?	life, student interaction, colleagues, influences, discipline, transformation
	4. What aspect of teaching do you find most enjoyable?	
	5. What are the most significant challenges you faced as a teacher?	Salary, resources, time, class-size
The role of education	6. From your personal perspective, what are the different purposes of education? 7. What are some important values that schools should promote in education? 8. Any examples of how _____ (that you just mentioned) is promoted here in this school?	“Basic values of the nation” (p.3), learning, skills, post-genocide needs
The role of teacher	9. For you, what are the most important duties of teachers?	
	10. How would you describe your roles in your students’ learning?	
	11. How about your students? What do you expect from them when they are in your class? How about outside lesson time?	Learning, behaviour, attitude, activities
	Reflecting on your own experience as a student: 12. Have you had any teacher that you regard as a role model? What are some of his/her characteristics? Did he/she use any teaching practices that you like?	
Understanding of “learner-centred” pedagogy	LCP in the GoR reform has become popular: 13. What do you understand by “learner-centred” pedagogy?	changes in curriculum, purpose of education, roles of teachers, role of students, teaching methods, assessment strategies

	14. For you, what are the 3 most important characteristics associated with LCP as promoted by the Rwandan government?	
	15. Outside of formal lesson time, do you see other “learner-centred” practices taking place in the school?	
	16. Is there any change in the school assessment/examination system? How did you assess students before, and now in LCP?	
	17. In your opinion, why is the new pedagogy important for the Rwandan context?	Student benefits, growth, social cohesion
	18. In your opinion, how is the government promotion of LCP different from the previous teaching approaches you adopted?	
	19. Could you describe what worked best when using that previous approach?	
	20. Could you please also share the challenges in using that approach?	
Subject-specific use of LCP	21. As a [English/maths/history/science] teacher, what is your experience of using LCP particularly in your teaching of [the subject]?	
	22. Could you share with me your best lesson in using “learner-centred” practices? Why did you consider it as the best? Did anything work less well and why?	
	23. How would you compare using LCP specifically in [the subject] with the previous approach?	
Teacher training	24. Have you attended any teacher training workshops recently in relation to LCP? What were discussed there?	
	25. What methods or activities did they use when they teach you about	lecturing, group discussion, demonstration, questions

	these changes in pedagogical approaches?	
	26. Among these methods or activities, which one(s) do you like the most? Why?	
	27. If you could make one suggestion to improve the next training, what would it be?	Theory, practice, apprenticeship, time, location, frequency, aspects of LCP
	28. Any examples of other sources which help you understand the new teaching approach?	
Meeting diverse learners' needs	Some teachers said their classrooms have very diverse learners, reflecting on your class: 29. Could you describe the different types of learners?	Age, gender, home/family/socio-economic background, disability, language, ability, absent, attitude, behaviour
	30. How do your students respond to your use of LCP?	"research", "prepare" (<i>use teachers' words in class</i>)
	31. How can LCP support the diverse learning needs, as we just discussed (a) disability/SEN; (b) gender; and (c) socio-economic background?	extra time/attention/work, peer support, seating arrangement, previous teaching approach
Process of change	32. In some countries learner-centred reform has been regarded as an imposition of international aid organisations or even as being in opposition to the wider socio-cultural norms. What do you think about such views in the context of Rwanda?	
	Some teachers said that they enjoy the new "learner-centred" pedagogy; while others said it was too difficult. 33. So far, what is your own experience? Why do you find it _____ (<i>repeat respondent's descriptor</i>)?	
	This is a "school of excellence": 34. Comparing this school to others you were in, which one would be the most ideal for you to use LCP? Why?	Student, teacher, school, policy, resources, infrastructure

	35. Imagine now you could freely change or improve anything in this school to support your use of learner-centred pedagogy. What would be the change?	Support from school management, colleagues, resources, infrastructure, students
	36. How about the policy? Do you have any suggestions for policymakers?	district and sector officials, REB, MINEDUC, teacher support, language policy
	37. Are there anything else you would like to change, but we have not discussed yet?	work conditions, salary, curriculum, textbooks and teaching materials, CPD/teacher training, pedagogical skills
	38. Is there anything else you would like to add?	
	39. Thank you very much for your time. Murakoze cyane.	

Appendix D: Sample observation schedule

Name of School:

Date:

Time:

Teacher:

Students in attendance/total (M/F):

Class and Lesson (minutes):

1. Classroom setting (determining seating arrangement; gender; group discussion; resources)

Materials	Remark	Language	Remark
Teacher book	<input type="checkbox"/>	English	<input type="checkbox"/>
Student book	<input type="checkbox"/> ratio:	Kinyarwanda	<input type="checkbox"/>
Printed pictures	<input type="checkbox"/>	French	<input type="checkbox"/>
Internet resources	<input type="checkbox"/>	Swahili	<input type="checkbox"/>
Drawing	<input type="checkbox"/>	Others	<input type="checkbox"/>
Local innovation	<input type="checkbox"/>		
Others	<input type="checkbox"/>		

2. Pedagogical activities: structure of a lesson and critical incidents

	Lesson flow	Notes:
Starting the lesson Start time:		<ul style="list-style-type: none"> • task, objectives, format, nature • interactional pattern (S-S, T-S) • role of T & S
Incident Start time:		

Reflection on the overall lesson:

3. Narrative Descriptions of teacher's specific strategies/critical incidents

Note teachers' strategies

Classroom management	Any encouragement or punishment? How do teachers treat “inattentive” students? The noise level and how do teachers control it? Any other discipline issues?
Meeting differentiated needs	How do teachers select specific students to answer Q? Do teachers know the students well (by names) ? How do teachers involve students with disabilities/SEN, different gender, learning abilities or progress, etc.?
Engage with learners' prior knowledge	Do teachers elicit any prior knowledge and in what ways? Where does the prior knowledge come from (e.g. individual experience? Books?)
Cross-cutting issues	Examples on: sexuality, gender, peace, genocide, environment and sustainability, finance, inclusive education and standardization culture?
Linking theories to real-life context	any specific examples?
Promoting attitudes and values	any specific examples?

Appendix E Post-observation interview with teachers

Thank you for letting me join your classes! Last time, we discussed multiple issues about CBC/LCP promoted by the Rwandan government. Building on that, I just have a few remaining questions, and then I hope to discuss the observations with you.

Themes	Questions	Prompts
Lesson Plan	1. For you, what should a <i>competent</i> student be like?	Characteristics, behaviours, abilities
	2. How do you help your students become competent? (e.g. How do you help students to understand and use knowledge in real-life?)	Strategies, methods
	If you don't mind, could you please share with me one of your lesson plans (ideally for the lessons we spent together):	
	3. What are the key objectives for this lesson? What are your major concerns when you plan your lessons?	
	4. Thinking about the way of teaching (e.g. activities) you prefer the most, are there any factors which prevent you from putting that in this plan?	Classroom, students, resources, time
	5. Comparing the lesson plan to the actual lesson, did you make any change or improvisation in class? Why?	
“learner-centred” strategies	We have learnt [topic] using [method/activity], followed by [method/activity]:	
	6. What are the objectives/purposes of using: research; whole-class questioning; pair/group work; student/teacher demonstration on the blackboard; copying-notes; debate; video; drama; lab practical; reading aloud; quiz	
	7. In your opinion, did it work well? Did anything work less well than expected? What might have been done differently?	
	8. How did you teach the same topic in the past before the CBC reform?	
	9. How would you compare these different ways of teaching the same topic? What are the strengths of the current pedagogy? Are there any limitations?	
	10. As you teach different levels, comparing your use of LCP in S1/S2/S3/A-level, are there any differences? Why?	English level, student capacity, discipline

	11. Now how about using LCP in different classes of the same level (e.g. 3A/B/C), are there any differences? Why?	
	12. Comparing before and after the reform, are there any differences in the way you manage classroom (discipline)?	Reward, punishment
Student Participation	13. I noticed that many students were yelling “teacher me”, but you called [name] to answer instead. Why did you choose that particular student?	
	14. In group discussion, I saw some students were [e.g. <i>not discussing</i>]. Is that accurate? How do you help students to participate? How do you usually form the groups?	
	15. For students who were seemingly “quiet” in class, What might be the reasons that some were more “active” than the others? How would you involve the “quiet” ones?	
Other critical incidents	16. Is there anything special occurred but I have not noticed?	

Murakoze cyane! Thank you very much for your valuable time to share with me. Wishing you all the best for the remaining part of the academic year, and looking forward to hearing any further feedback you might have for my research!

*ensure teachers have contact details

Appendix F: Local affiliation documents and research permit



**Executive Director
National Commission of Sciences and Technology
Kigali-Rwanda**

Kigali, 12 / 02 / 2019
Ref. No: DVC-AAR/047/2019

Dear Executive Director,

RE: RECOMMENDATION LETTER

On behalf of the University of Rwanda, I am pleased to recommend to you Pui Ki Patricia Kwok, from the University of Cambridge, United Kingdom, affiliated to the University of Rwanda to undertake a PhD research entitled '**'The implementation of ‘Learned-centered’ pedagogy in Rwanda: Teachers as mediators**' from 01/01/2019-30/08/2019.

We recently recommended Pui Ki Patricia Kwok for implementing this study from 01/01/2019 - 30/06/2019. However due to the changes in her sampling study and study objectives, following her supervisor's recommendations; she will need to extend her temporary permit until August 2019. This extension will also allow her to share findings with UR/College of Education. These findings will be beneficial to academic staff who are still in the process of understanding and practicing the policies on student centered pedagogy.

Her supervisor remains Prof. Eugène Ndabaga (email: ndabagav@yahoo.ie, Telephone: +250788308862), College of Education, University of Rwanda.

Kindly accord Pui Ki Patricia Kwok the necessary assistance to facilitate her study.

Sincerely,

A handwritten signature in blue ink, appearing to read 'P.D. Ijumba'.

And. Charles MURIGANDE
DVC IA

**Prof. Nelson Ijumba
Deputy Vice Chancellor for Academic Affairs and Research
University of Rwanda**

Cc:

- Vice Chancellor
- Principal, College of Education
- University Director of Research and Innovation





NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY (NCST)

Grand Pension Plaza, 13th Floor, KN 2 Roundabout, Kigali

PO Box: 2285 Kigali – Rwanda

E-MAIL: info@ncst.gov.rw ,WEBSITE: www.ncst.gov.rw

PERMISSION TO CONDUCT RESEARCH IN RWANDA

Nº NCST/482/ 74/2018

I, the undersigned, hereby grant the researcher (s) in Section I permission to conduct research in Rwanda. This permission only covers research activities related to the provided research title, during the specified period and at specified location (s) in Section II of this form.

Section I: Personal Information

1. Family Name: **Kwok** Other Names: **Pui Ki Patricia**

2. Academic Qualification (Highest degree): **MS, MA**

3. Home Institution: **University of Cambridge** Occupation: **PhD Student**

4. Phone Number (in Rwanda): **0788312740**

5. Email: **pkpk2@cam.ac.uk**

6. Primary Research Supervisor:

 - a. Names: **Dr Ricardo Sebates**
 - b. Institution: **University of Cambridge** Occupation: **Professor**
 - c. Phone Number: **+441223767600**
 - d. Email: **rs@cam.ac.uk**

7. Research Collaborators:





Names	Institution
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Institution

1

2

3

4

Section II: Research Information

1. Research Area: **Education**
2. Research Title: **The implementation of "learner-centered" pedagogy in Rwanda: Teachers as mediators**
3. Affiliating Rwandan Institution: **University of Rwanda**
4. Rwandan Supervisor:
 - a. Names: **Prof Eugene NDABAGA**
 - b. Occupation: **Professor, College of Education, University of Rwanda**
 - c. Phone Number: **0788308862**
 - d. Email: **ndabagav@yahoo.ie**

5. Fieldwork Location:

*This area shows the names of the authorized schools for undertaking this research. They are anonymized for ethical reasons.

6. Research Period:

- a. From: **March 25, 2019**
- b. To: **August 31, 2019**

Section III: Other Important Notes

Section IV: Signature

This permission to conduct research in Rwanda is issued in accordance with Ministerial Instructions 003/2010 of 09/12/2010 regulating research activities in Rwanda.

Kigali, on

[Signature]

KALISA M. Felly

Ag. Executive Secretary



NCST Ref: *074../NCST.2018*

Appendix G: Sample information sheet

UNIVERSITY OF CAMBRIDGE
FACULTY OF EDUCATION

184 Hills Rd, Cambridge CB2 8PQ, United Kingdom
Tel: +44 (0) 1223 767600



**UNIVERSITY OF
CAMBRIDGE**
Faculty of Education

The implementation of learner-centred pedagogy in Rwanda: Teachers as mediators

Information for Teachers

Invitation

You are being invited to take part in the entitled research study. It is important to let you know why the research is being conducted and what your participation entails. Please feel free to enquire any aspects of the project. Please take time to decide whether or not you would like to take part in this research.

What is the purpose of the study?

This study is an exploration of the teaching and learning practices in Rwanda in relation to the new competence-based curriculum.

Why have I been chosen?

As a key actor in the implementation of education policies, your experience and perspective can help us understand the process of change.

Do I have to take part?

It is entirely your voluntary decision to take part in this study. You are always welcome to ask questions about the study before deciding whether or not to participate. You may withdraw yourself and your data from the study at any time, without giving a reason and without penalty, by advising the researchers of this decision. You do not need to answer questions that you do not wish to.

What will happen in the study?

Individual interview

- The interviews will be conducted face-to-face at a place and time at your convenience
- you will be asked for permission to audio-record the conversation; you may decline permission with no consequence to you.

Classroom observations

- This is not an evaluation of your teaching, but a mutually reflective process to understand how classroom activities are arranged as they are. The researcher will not interfere in any of your teaching.
- You will be asked for permission to audio-record the lesson.
- The time will be arranged individually with you in the school.

What are the potential risks of taking part?

Your privacy is of great respect and hence every effort will be made to preserve confidentiality. The research data will be stored confidentially using password-secured devices. Only the researcher and the supervisors will have access to the research data. Your responses will be anonymized accordingly.

What are the benefits of taking part?

The benefits are helping to create a picture of the improvement of teaching and learning through education reform. It will also be informing for those interested in the priorities and dilemma in educational reform.

What will happen to the results of this research?

The results of this research will form the basis of a Cambridge PhD dissertation. On successful submission of the thesis, it may be deposited both in print and online in the University archives, to facilitate its use in future research. All research data and records will be stored for a minimum retention period of 3 years after publication or public release of the work of the research. Some results may be published in academic journals.

Who is funding and organizing the research?

The research is organized as an independent research project for a PhD degree at the Faculty of Education, University of Cambridge, UK.

Who has reviewed this study?

This study has been reviewed and received ethics clearance through, the Faculty of Education at University of Cambridge, University of Rwanda-College of Education, and MINEDUC.

Who do I contact if I have a concern about the study or I wish to complain?

If you have a concern about any aspect of this study, please speak to the researcher or their supervisor, who will do their best to answer your query.

Contact for Further Information or Follow-up:

Your inquiries are most welcome. Please feel free to contact:

Researcher:

Pui Ki Patricia Kwok

Tel: +250 780826149

Email: pkpk2@cam.ac.uk

Local Supervisor:

Prof. Eugene Ndabaga

University of Rwanda-College of Education

Tel: +250 788308862

Email: ndabagav@yahoo.ie

Project supervisors:

Dr. Ricardo Sabates

Email: rs867@cam.ac.uk

Dr. Nidhi Singal

Email: sn241@cam.ac.uk

Appendix H: Sample consent form

UNIVERSITY OF CAMBRIDGE
FACULTY OF EDUCATION

184 Hills Rd, Cambridge CB2 8PQ, United Kingdom
Tel: +44 (0) 1223 767600



Research Consent Form

Project Title:

The implementation of learner-centred pedagogy in Rwanda: Teachers as mediators

Researcher: Pui Ki Patricia KWOK

Declaration of Consent:

I have read the participant information sheet and have had the opportunity to ask questions about the study and receive satisfactory answers to questions.

I understand that I may withdraw from the study without penalty at any time by advising the researchers, and any data already recorded will be discarded.

I understand that this project has been reviewed by, and received ethics clearance through, the University of Cambridge's Research Ethics Committee.

I understand that my personal data will be treated in total confidence, kept securely in a password controlled server; and what will happen to the data at the end of the project.

I understand that I will have the opportunity to review and comment on any analysis before publication.

I understand how to raise a concern and make a complaint, and agree to participate in this study

- I agree to voluntarily take part in this interview.
- I confirm that I have read the associated information sheet and understand the intent and purpose of this research.
- I agree that data captured by this research can be shared among the research team on this project.

Name of Participant: _____ Email: _____

Signature: _____ Date: _____

Name of Researcher _____ Signature and Date: _____

Appendix I: Sample code sheet for analysing interview data from teacher participants

Competence-based curriculum	Participants discuss the rationale and focus of the competence-based curriculum reform which officializes LCP as the approach to teaching and learning
Rationale	Participants discuss the origin of LCP and CBC
Inclusive	Participants discuss how teachers involve or engage as many students as possible
Real-life	Participants mention how learning is connected to real-life scenarios
Cross-cutting issues	Participants discuss “cross-cutting issues” listed in CBC (e.g. communication, cooperation, critical thinking, discipline, early pregnancy, environment and sustainability, financial education, gender equality, genocide, hygiene, inclusive education, peace, respect)
Competencies	Participants explain the meaning of “competencies” which are the key desired learning outcomes
Comparison with previous approach	Participants compare the advantages and disadvantages of LCP and other approaches to teaching and learning
Classroom management	Participants discuss differences in terms of classroom management
Help different learners	Participants discuss the involvement of students with different learning needs
Content	Participants mention the differences in terms of content and theories
Student involvement	Participants discuss the nature of student participation in different approaches
Roles of teachers and students	Participants discuss the different roles of teachers and students
Not new	Participants suggest that LCP is not new to Rwanda
LCP activities	Participants conceptualize LCP based on the type of activities used in classroom learning
Debate	Participants discuss the use and purpose of using debate
Diagram	Participants discuss the use and purpose of using diagram
Pair work	Participants discuss the use and purpose of using pair work
Group work	Participants discuss the use and purpose of using group work
Individual work	Participants discuss the use and purpose of using individual work
Practical	Participants discuss the use and purpose of using practical experiments
Presentation	Participants discuss the use and purpose of using presentation
Questioning	Participants discuss the use and purpose of using questions
Read aloud	Participants discuss the use and purpose of students reading aloud
Role play	Participants discuss the use and purpose of using role play
Students writing on blackboard	Participants discuss the use and purpose of students writing on blackboard
Story	Participants discuss the use and purpose of using stories

Teacher explain	Participants discuss the use and purpose of teacher explanation
Video	Participants discuss the use and purpose of using videos
Field visit	Participants discuss the use and purpose of using field visits
Copy notes	Participants discuss the use and purpose of copying notes
Role of student	This theme focuses on how participants view LCP in relation to students, including their expected roles, characteristics, and behaviours
Active participation	Participants use the word “active” to describe student participation in learning
Construct knowledge	Participants use the word “construct” to describe students’ role in knowledge-making
Discover	Participants use the word “discover” to describe students looking for their own information
Discuss	Participants mention that students should discuss in groups
Do research	Participants mention that students should do research assigned by teachers outside lesson time
Talk	Participants describe that students should “talk more” or share more talking time
Work hard	Participants mention that students should “work hard”
Centre of learning	Participants describe students are “at the centre of learning”
Follow the teacher	Participants mention that students should pay attention to and follow instructions given by teachers
Perform well	Participants mention students should study to perform well in both in-school and public examination
Role of teacher	This theme focuses on how participants view LCP in relation to teachers, including their expected roles, characteristics, and behaviours
Facilitator-activities	Participants use the word “facilitators” to describe teachers based on the activities they use in classroom
Before-instruction	Participants focus on teachers’ instructions or organization before starting learning activities
During-guide	Participants focus on teachers’ movement and activities during student activities
After-correction	Participants focus on teachers’ conclusion and feedback process after the activities
Facilitator-content	Participants use the word “facilitators” to describe teachers based on how they help students learn by linking content to everyday realities
Inclusion	Participants mention how teachers should help learners with diverse learning needs and how adjustments can be made
English proficiency	Participants comment on students who have different proficiency in English
Gender	Participants comment on students of different gender
Quick and “slow” learners	Participants comment on how “slow” learners can work together with “quick” learners
SEN	Participants comment on students with special educational needs
Socio-economic background	Participants comments on students from different socio-economic background

Values and attitudes	Participants mention how teachers should promote Rwandan values and attitudes
Desired outcomes of LCP	This theme focuses on desired outcomes of LCP in line with the broader learning objectives listed in CBC
Student-based	Participants describe the desired outcomes of LCP based on how it can help students to meet their personal needs
Attitudes and values	Participants define “competent students” as those who have acquired certain Rwandan attitudes and values
Real-life application	Participants define “competent students” as those who can apply learning in real-life
System-based	Participants describe the desired outcomes of LCP based on how it can help to meet national needs such as socio-economic development
Economic development	Participants mention how students can become “human capital” to support economic development of the nation
Society	Participants mention how students can support social development, such as addressing social issues and post-genocide reconstruction
Factors affecting the use of LCP	This theme focuses on the factors that are deemed influential in enabling or hindering the use of LCP
Culture	Participants mention how Rwandan culture or the existing learning culture influence the use of LCP
Parents	Participants mention how parental engagement or contribution can influence the use of LCP
School leaders	Participants mention school leaders such as Director of Studies (DoS) and headteacher can influence teachers' use of LCP
Student-related	Participants mention how students' response to LCP is influenced by their characteristics
Student capacity	Participants mention how students' abilities and access to resources can influence their participation in LCP activities
Student discipline	Participants mention students' behaviour in response to teachers' assigned tasks
Student motivation	Participants discuss students' level of engagement in tasks assigned or in classroom discussion
Instructional environment	Participants mention how the characteristics of instructional environment can influence the use of LCP
Class size	Participants mention class size as a key factor and provide details of how this influences teachers' use of LCP
Resources	Participants mention the condition of existing instructional and non-instructional materials can influence teachers' use of LCP
Policies	Participants mention any specific national policies or the nature of policymaking that influence the use of LCP
Automatic promotion	Participants mention the policy of “automatic promotion” and its effect on student motivation
Content	Participants mention the change of content in the syllabus which influences the focus of LCP
Examination	Participants mention how policies related to assessment or examination system can influence the use of LCP

Policy fluctuation	Participants mention policy fluctuation that influence teachers' understanding and use of LCP
Language MOI	Participants mention how the medium of instruction can influence the capacity of teachers and students to engage in LCP
Time	Participants mention the unavailability of time for students and teachers to prepare and engage in LCP activities
Teacher training	Participants mention how teacher training or CPD (continuous professional development) can influence teachers' use of LCP
Cascade	Participants discuss the cascade model of teacher training and its consequence
Frequency	Participants discuss the frequency of training
LCP methods	Participants discuss how LCP methods are introduced in training (e.g. lecturing, demonstration, micro-teaching)
Pedagogical documents	Participants describe how training focuses more on filling in pedagogical documents than teaching and learning methods
Trainers	Participants mention issues with teacher trainers in helping teachers to understand LCP
Teacher-related	Participants mention characteristics or behaviours of teachers that can influence the use of LCP
Teacher understanding	Participants comment on teachers' level of understanding of LCP
Teacher mindset	Participants mention how the mindset of teachers can influence their response to LCP
Teacher motivation	Participants describe the factors impacting teachers intrinsic and extrinsic motivation, and how this can influence their response to LCP reform efforts

Appendix J: Sample code sheet for analysing classroom observation

Classroom setting	This theme focuses on the physical seating arrangements observed in class
Row-and-column	students line up in rows and columns, with teachers mostly standing in front
Student in groups	Students forming groups with teachers standing in front or walking around the classroom
Students surrounding teachers	Students sitting by the classroom walls, with the teacher or presenter standing in the middle
Pedagogical environment	This theme focuses on the pedagogical materials and language observed in class
Student book	The presence of students' book
Teacher book	The presence of teachers' book
ICT	The presence of ICT resources (e.g. projectors, computers, and video)
English only	Teachers only use English as the medium of instruction
Kinyarwanda	Teachers code-switch with English and Kinyarwanda
Nature of questions	This theme focuses on the questions teachers assigned to students in lessons
Textbook exercise	Teachers provide students with exercises from the textbooks (with or without the presence of the textbook)
Research on textbook	Teachers distribute textbooks for students to identify answers to the given questions from the textbooks provided
Factual questions	Teachers ask students to recall factual details (e.g. give definitions of a term, the dates and details of historical events)
Open-ended	Teachers ask students to share their personal understanding, views or prior experiences
Yes/no	Teachers ask students to respond yes or no to given questions
Real-life application	Teachers ask students to suggest an example of real-life application of the taught content
Group work	This theme focuses on teachers' observed activities in class during group works assigned to students
Repeat instruction	Teachers repeat instructions (e.g. questions, responsibility of students, and logistics)
Managing discipline	Teachers address student behaviour in groups
Interact with students	Teachers interact with specific groups or individual students
Timekeeping	Teachers indicate the time limit and keep counting down
Check answer	Teachers are seen marking student answers in their notebooks
No facilitation	Teachers are outside of the classroom, or remain inside but not seen interacting or checking any students (e.g. working on pedagogical documents)
Student off-task	Students are seen doing tasks irrelevant to the given task (e.g. sleeping)
Presentation	This theme focuses on the characteristics of students' presentation observed in class after group work
Choose randomly	Teachers indicate that they choose presenters 'randomly'

Give brief points	Students providing brief responses comprising few-word answers or short phrases
Inaudible response	Responses from students are inaudible due to overlapping, low volume or environmental noise
Writing on the blackboard	Teachers invite students to write their answers or steps on the blackboard
Reading aloud to the teacher	Students read aloud their answers mostly to the teacher
Whole-class interaction	This theme focuses on the characteristics of whole-class interactions observed in class, usually with teachers standing in front and students expecting to respond in uniform or individually
Check memory	Teachers ask students to recall the content covered in previous lessons or details about a specific term
Discipline	Teachers address issues related to classroom management including specific student behaviours
Game	Teachers play warm up games with students
Direct explanation	Teachers directly explain concepts or provide information to students
Students filling in the end-gap	Students fill in end gaps after teachers, usually cued by teachers' pause or rising intonation
Student-initiated questions	Students ask teachers or peers questions
Linkage to real-life	Teachers explain the linkage of subject content to everyday life using relevant examples
Writing notes	Teachers copy notes on the blackboard and let students copy them in their notebooks
Practical	This theme focuses on the practical sessions observed in chemistry
Copy protocol	Teachers provide the experiment protocol with steps for students to copy in their notebooks and follow
Observe teacher	Teachers conduct the experiment and students are asked to observe only
Students not touching setup	Students are not seen touching the test tubes
Values and attitudes	This theme focuses on teachers' observed discussion of values and attitudes with students in class
Cross-cutting issues	Teachers discuss any cross-cutting issues as officialized in the curriculum in relation to subject content
Gender balance	Teachers mention explicitly 'gender' in forming groups, allocating turn-taking, and choosing presenters
Discipline	Teachers address student behaviours in class and beyond class time
Giving back	Teachers discuss with students the importance of giving back to societies in the future
Help each other	Teachers discuss with students the importance of students helping each other
Feedback	This theme focuses on teachers' responses to students' answers or presentations as observed in class

Stating the answer as correct	Teachers directly confirm that the student's response is correct
Check same answer	Teachers check with the class to see if all students have the same answer
Explain concept	Teachers explain the answers themselves such as by providing more details or elaboration
Ask for another point	Teachers ask students to provide another point to the given question
Repetition of questions	Teachers repeatedly restate the questions asked
Ask another student	Teachers ask for another student to respond to the given question
Ask to research	Teachers did not provide a direct answer but ask students to do research on the given term after class
Reasoning	Teachers provide any reasoning for the answers being 'correct' or 'incorrect'
Probe for elaboration	Teachers probe students to elaborate (e.g. give examples, personal views and/or reasoning)
Give appreciation	Teachers request students to thank the presenters
Students leading discussion	Teachers assign the 'teacher' role to a student and let him/her lead the feedback process