Preservice language teachers’ digital teacher identity development in an under-resourced context

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ABSTRACT

**Title:** Preservice language teachers’ digital teacher identity development in an under-resourced context

This study explored how student-teachers on an English language teacher education programme in Rwanda are positioned and position themselves as they go through the process of developing and negotiating a digital teacher identity in a country that aims at becoming a regional hub for telecommunication and educational innovations. Specifically, the study sought to answer three questions focusing on digital teacher identities assigned to teachers in policies and teacher training programmes, student-teachers’ enactment of digital teacher identities in light of their positioning by teacher educators, and digital teacher identity negotiation during a year-long teaching internship.

The study uses Positioning Theory to understand different aspects of student-teachers’ digital teacher identities as they learn to use ICTs for educational purposes. The focus is put on the identity negotiation of two student-teachers who were interviewed at the beginning, middle and end of their teaching internship. The study also uses reflective interview data from five teacher educators who were involved in the professional development of the student-teachers. The interview data is complemented by an analysis of ten policy documents and program documents that are salient in the technology training of language teachers.

Findings indicate that student-teachers positioned themselves either as victims of poor training, role models who achieved a lot despite being under-resourced, and technologically unprepared and poorly trained to integrate ICTs in their teaching of English. However, these identity claims were motivated by student-teachers’ self-preservation and self-presentation motives as they often reflected their desire to gain favourable positions and to be recognised as unique technology-using teachers rather than to achieve pedagogical goals through their ICT practices. The study found that student-teachers relate to the socio-cultural, educational, and discipline identities to reaffirm, claim or renegotiate different positions and digital teacher identities, using three main identity negotiation strategies: making epistemic claims about the use of ICTs in teaching English and in society at large, making membership categorisations in which they claimed to belong or assigned others to certain categories of ICT users while rejecting others, and making affective claims about their ICT practices and acceptance.

Both student-teachers and their teacher educators used contextual constraints to justify their inability to enact digital teacher identities assigned by policies, even when this could be accounted for by non-contextual factors. Findings of this study show a dissonance between these policy assigned digital teacher identities and those negotiated by student-teachers themselves or assigned to them by their teacher educators. The study concluded that the existence of acknowledged ICT access challenges and the range of educational priorities in Rwanda served as a justification for overlooking the use of ICTs and therefore the development of practice-oriented digital teacher identities on the teacher education programme, and specifically during the teaching internship. Lastly, an unexpected finding of the study is that the study itself was used by participants as a mentoring and professional development opportunity. This researching as mentoring effect of the study resulted from a lack of such opportunities in their environment. This casts research participation as a potential mentoring or professional development opportunity in such under-resourced contexts.
DECLARATION

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I was brought up in a family where neither my parents nor relatives had been to school. Because of this, my journey into formal education that started in the early 1990s had no examples to follow. Many of my primary teachers were primary school leavers themselves and therefore had limited educational experiences to share and inspire their students. This primary education experience was nevertheless interrupted by the Genocide against the Tutsi in 1994. After the Genocide, my school had been looted and severely damaged. My experience going to primary schools in these days shaped both my interest in languages and teacher education.

In fact, my primary school was frequently visited by international charity workers and representatives who brought objects of basic necessity such as notebooks, pens, books, pencils, etc. My young mind made a quick association between the linguistic skills of the couple of teachers who interacted with the foreigners and the donations my school received. This sparked in me a profound desire to demonstrate that same relevance in society and I only imagined one way of doing it—learning French and English. My motivation propelled me past myriad obstacles, informing my choice to pursue languages in secondary school and language teaching at University. In the process, I gained a Bachelor’s Degree in French and English, a Masters’ Degree in Teaching English to Speakers of Other Languages, enabling me to become a language teacher and teacher educator.

The radio being the most sophisticated piece of technology I had access to as a child, it was never a dream for me to use ICTs in teaching, let alone research their use or the teachers who use them. It just was not something one would think about growing up in a place where people gathered at the neighbour’s with the radio to listen to the news. Yet, after I became a teacher, I was fascinated from early days by discovering through training with the British Council various ways of using the radio and other tools for language teaching. This would later influence my decision to follow Educational technology as specialisation during my MA TESOL training.

Ever since, the use of ICTs for learning purposes has become a growing interest both in my practice as a teacher and an emerging researcher. Luckily, my career having started at a time when Rwanda was embracing ICTs for education, my work environment has become increasingly technology-rich. This has represented for me an opportunity to combine my interests in who a teacher is—from a social relevance perspective—and the use of ICTs for language learning. These intersecting interests in language teaching, teacher identity and technology have informed both my MA dissertation research and underpin the research reported in this thesis.
Acknowledgement

The completion of this project would not be possible without the help and support of many people and institutions that I would like to thank specifically.

Firstly, I am very grateful to the student-teachers, teachers and teacher educators who agreed to take part in this study. Without them, this study would not exist. I am equally indebted to the University of Rwanda officials, staff and programme directors who gave me support in securing the necessary ethical approval in Rwanda, or supported my research by providing needed information and guidance in various ways.

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Last but not least, I would also like to thank Elaine Jones and the PGR office staff, for always being just an email away from providing all the needed information and advice. My appreciation also goes to the University Library staff for the trainings and book purchases.

This work is dedicated to you all.
Chapter 1: Introduction to Education in Rwanda: Framing the context

In this chapter, I give a brief introduction of the education system in Rwanda, with a focus on the key areas of concern for this study. First, I will briefly introduce the education system and its characteristic discriminatory practices, the adoption of English as a medium of instruction and the ambition to digitise the country’s education through ICT adoption plans. I will then discuss teacher training and status in Rwanda from a historical perspective. The overall aim is to clarify the context in which this study’s participants develop and enact professional identities. By the end of the chapter, the reader should appreciate the contextual background and justification for an exploration of English language teachers’ digital teacher identity (DTI) development and negotiation in Rwanda.

1.0 Introduction

In post-independence Rwanda, Education was an area of society in which discrimination thrived before it culminated in the 1994 Genocide against the Tutsi. A key educational policy that exemplifies this normalisation of discrimination was the infamous ‘regional and ethnic quota policy’ known to Rwandans as *Iringaniza* (literally social justice) (McLean Hilker, 2010). Ironically, the politics of *Iringaniza* put in place several discriminatory measures presumably aimed at restoring social justice. To be admitted into secondary education, students were expected to tick all the ‘right’ boxes in terms of ethnicity, gender and region, in addition to academic performance. Essentially, this legal provision gave the ruling elite the power “to discriminate at will” against different groups even though the policy superficially “gave a sense that there was an acceptable method for determining who would go to school” (Walker-Keleher, 2006, p. 39).

The role of teachers in this was crucial as they reinforced the policies in their schools, by verifying ethnic and regional backgrounds of their students and perpetuating the divisive mind-set among their students. Here, it is noteworthy that teachers themselves were the product of this discrimination and therefore became part of the engine that maintained the discriminatory status quo. Consequently, teachers and their students prominently featured in the 1994 Genocide as it destroyed the schools, with many teachers and students as either victims or perpetrators (Freedman et al., 2004; Obura, 2003). The education system was so “severely damaged” in the aftermath of the Genocide (McLean Hilker, 2011) that 65 % of
schools had been “destroyed, burned or looted” while “75 percent of the teachers were killed during the violence or are in jail for allegedly participating in the genocide” (Arden & Claver, 2011; Freedman et al., 2004, p. 250; Obura, 2003).

Thus, post-Genocide, Rwanda’s educational priority was to rebuild the nation through education. Since then, “equality and non-discrimination in education have been given particular emphasis” in the system (Rubagiza, Umutoni, & Kaleeba, 2016, p. 204). However, the success of this depended on addressing the “numerous deficiencies” of the education sector consisting of “low intake capacities at all levels, unsuitable curriculum content and under-qualified teachers, and a system which lacks efficiency from the management point of view” (MINEDUC, 1998, p. 7). Moreover, efforts to ensure education would not lead to further conflicts and genocides required purging the education system of what has been termed ‘hate curriculum’ (L. Davies, 2010). The needed changes also required potential changes in how teachers acted and behaved, i.e. an adaptation of their teacher identities to the pressing challenges.

The launch of the *Education Policy* in 2003 gave form and structure to the post-genocide education sector in Rwanda. This policy gave the education sector clear but ambitious social, economic and technological responsibilities in the development of the country. Primarily, education was to play a key role in ensuring national reconciliation and developing the highly needed manpower for reconstructing the country. Education then became “crucial for providing an efficient and productive workforce” (Government of Rwanda, 2012). Education was also tasked to play a central role in the still ongoing transformation of the country from an agrarian to a knowledge-based society that doubles as a digital and economic regional hub (MINECOFIN-Ministry of Finance and Economic Planning, 2013).

These newly formed expectations from the education sector put teachers at the forefront of the transformation. Cognisant of teachers’ role in achieving the ambitious educational goals, the Government launched the *Teacher Development and Management Policy* in 2008 to “strengthen institutional and structural capacities for improving teacher quality in Rwanda” (Rubagiza et al., 2016, p. 209). These reforms turned Rwanda into a model for the universal access to education goal (UNDP, 2014), an achievement that was unimaginable in the early 2000s. This success provided credence to the argument that Rwanda has experienced all the
“metamorphoses” of education as “an organ of destruction, or ... a mechanism for restoring normalcy or for peace-building” (Obura, 2003, p. 29).

One of the reforms aiming at rebranding education in the post-genocide Rwanda was the replacement of French by English as the medium of instruction at all levels of education. Considering that “English is currently the undisputed language of science and technology” (Nunan, 2003, p. 590), Rwanda’s aspirations to become a regional economic and digital hub necessitated this language policy change from French to English as medium of instruction (Simpson & Muvunyi, 2012).

Because of this, teachers of English have been consistently in the spotlight in media stories that discuss the quality of education. They are often shown as the culprit for the low quality of education whereby students are unable to engage in the medium of instructions or because subject teachers are unable to teach in the medium of instruction (supposedly because even the teachers were not effectively taught to use English). The critical role of English and ICTs in achieving Rwanda’s educational goals was a deciding factor in this study’s focus on preservice English language teachers’ digital teacher identity development.

1.1 English as a medium of instruction in Rwanda

When Rwanda became a Belgian colony after Germany’s World War I defeat, French was introduced as the medium of instruction in Rwandan schools, at least from the secondary level (Samuelson, 2013). This remained so until the 1994 Genocide. After the genocide, the medium of instruction has frequently changed and the medium of instruction policy in Rwandan has become a much discussed issue (Edwards, 2019; Samuelson, 2013; Simpson & Muvunyi, 2012; Steflja, 2012; T. P. Williams, 2020). Changes in the medium of instruction policy started in the immediate aftermath of the Genocide with the introduction of a hybrid system where some schools could choose to teach in English while others continued to teach in French, which was the pre-existing medium of instruction. This decision was justified in the sense that some Rwandans had been in exile in English speaking countries and were unlikely to continue their education in French. Given that English became an official language and a medium of instruction immediately after the Genocide which was masterminded by a French-leaning and French speaking Government, there have been claims that “the significance of French began to decrease after the 1994 genocide, under the new leadership’s obvious
preference for English.” (Steflja, 2012, p. 2). Thus, English is viewed as the language of the new political elite and one that has primarily benefited the English speaking elite, a status formerly held by the French language (Samuelson, 2013; T. P. Williams, 2017).

After the medium of instruction policy kerfuffle that lasted between 1996-2008 and “enormously burdened the educational system” by declaring Kinyarwanda, English and French media of instruction and mandating students to learn all these languages (Samuelson, 2013), the Government announced in 2008 that English was to become the sole medium of instruction at all levels of education in the country. The sudden decision to adopt English as the unique medium of instruction was criticised as politically motivated, given the country’s disagreements with France on its role in the 1994 Genocide at the time of this decision (Kamwangamalu, 2016; Samuelson, 2013; Stefija, 2012). The government justified it as a path to “economic success” (Edwards, 2019; Samuelson, 2013; Stefija, 2012; The World Bank, 2018), recycling what has been described as a “convenient excuse” used by many African nations that English has become “a global language of commerce, trade, and international communication” (Kamwangamalu, 2016, p. 97).

In fact, Rwanda sees English as a means for its global competitiveness and successful memberships in regional (The East African Community) and international organisations (The Commonwealth) but also as a means of boosting its internal productivity by attracting foreign investors who often need skilled labour capable of speaking English. As Samuelson (2013, p. 219) notes “Rwandans perceived that the future of globalization is written in English, and they wanted to [be] able to participate in that new world”. Because of this desire to use English to achieve socio-political successes in the short term, the uptake of English as a medium of instruction has not moved as fast as the socio-political ambitions. This has led to a search for “quick fixes” (e.g. one-month long short courses to turn French-speaking teachers into users of English as a medium of instruction) which have only highlighted the contrast between the need for immediate political results and the necessity of a careful educational language policy planning. This has been particularly the case in primary schools where from 2008 to 2019, the medium of instruction has changed three times, first from Kinyarwanda to English, then from English to Kinyarwanda and from Kinyarwanda to English once again (T. P. Williams, 2020). The main shortcoming of these changes is the lack of teacher preparation for the change and a lack of consistency and clarity as to what language policy is being followed. As an indication
of unplanned medium of instruction policy change, shortly before the recent (2019) medium of instruction policy change, the country had reportedly received funding from the UK Government for the purchase of textbooks in Kinyarwanda to allow for the teaching of primary students in their mother tongue (Edwards, 2019).

Nevertheless, Rwandan teachers’ ability to use English has become an important teacher identity marker, one that is used to label teachers and often question their competence and ability to deliver quality education to their students (Ukwezi News, 2017; Umurerwa, 2018). Failures to achieve educational quality targets are often blamed on teachers who are generically portrayed as unable to speak the medium of instruction and therefore become the barriers to their students’ educational attainment (Ukwezi News, 2017). Yet, the country’s constant policy change leaves teachers no time to adapt to the medium of instruction, and becomes itself a potential obstacle to achieving the quality of education, especially for children in under-resourced schools (Edwards, 2019).

It is under this context and against this background that the current cohort of pre-service English language teachers train to become language teachers. Specifically for the cohort of student-teachers considered in this study, they have done their schooling under the English as a medium of instruction policy. Thus, their relationship with and experience of English in the classroom is widely different from that of other teachers who were exposed to English later in their teaching careers.

In the next sections, I discuss how, in addition to English, Rwanda adopted ICT as cornerstone of its educational policy.

1.2 The ICT turn in Rwandan Education

1.2.1 The digitisation of Rwandan society

To appreciate the place ICTs occupy in today’s Rwanda’s education system, one needs to look at the digitisation process that has taken place in the post-genocide Rwandan society. Rwandan society has become increasingly digitalised since the country’s Vision 2020 was launched in 2000, with ICT as one of the pillars of the country’s development goals. Today’s Rwandan society is heavily reliant on different technologies for government services, business transactions, education and entertainment. Rwandans can now use various ICTs to buy and
sell goods and services, apply for, pay and receive government services. This is because, as
The World Bank notes, “Despite its small size, Rwanda has distinguished itself as a country
that has “bet big” on digitization, as a means to accelerate growth and reduce poverty.”
(World Bank, 2020, p. 18). This digitisation has been happening across a range of sectors and
services—health, education, commerce, local government—thereby making the use of ICTs
an important mediator for Rwandans seeking government services or economic opportunities
beyond the traditional agriculture that still dominates the Rwandan economy.

According to the World Bank, “Rwanda’s digital development journey to date has been
spearheaded by a government deeply committed to leveraging ICT as a cross-cutting enabler
of economic growth, innovation and service delivery.” (World Bank, 2020, p. 19) In fact, the
government has pushed efforts to improve access to ICTs and other digital technologies by
dedicating an important part of its budget to ICTs. This also includes efforts to integrate
technology in the lives of rural, agrarian communities in Rwanda. As a result, Rwanda has
significantly outpaced its African counterparts with its investments in ICTs. “The country’s
current ICT sector budget is on a par with nations of the Organisation of Economic
Cooperation and Development (OECD), a grouping of 30 rich nations, at 1.6 percent, far above
the African average.” (Visit Rwanda Guide, n.d.). Specifically, “Rwanda has emerged as a top
African performer in both worldwide 'e-government' and 'doing business' rankings, thanks to
the expansion of the government’s e-service offering and allowing regulatory reform.”

The Country’s social digitisation is more evident in the increasing access and use of mobile
phones, and a range of technology-mediated services that are made possible by the use of
mobile phones. In fact, many Rwandans—including those who cannot read and/or write—
have unprecedented opportunities to use digital tools, of which mobile phones are the most
pervasive and most accessible in the country. Government statistics show that the number of
households with mobile phones has improved from 6.2% in the year 2005/06 to 70.6 in
2019/2020 (National Institute of Statistics of Rwanda, 2020). At the same time, the cost of
mobile phones has significantly decreased. “In 2005, the cheapest mainstream handset in
Rwanda cost roughly $70, or 3.5 months of the mean person’s consumption; by 2009
handsets were available for $13” (Björkegren, 2019, p. 1037). Because of this, more people
are now able to afford mobile phones.
For those who still cannot afford mobile phones despite the decreasing costs, there has been efforts to ensure they are not left behind in the digitisation efforts. In 2019 for example, the launch of the *Rwanda Connect Challenge*—a campaign aimed at increasing access to mobile devices for all Rwandans—saw different institutions and individuals donate smartphones to the poor who could not afford them. By December of the same year, the campaign had reached pledges for over thirty thousand smartphones to be given to the poor (Ntirenganya, 2020). All this raises digital awareness of Rwandans, regardless of whether they are urban, rural, educated or not. Efforts like these show that mobile phones are now considered a basic necessity in Rwanda.

The increasing access to mobile phones due to price drops and mobile phone donations to the poor has enabled the normalisation of mobile phones in different sectors. In fact, in its efforts to leverage the “now more-or-less universal telephone connectivity in Rwanda” (The Global e-Schools and Communities Initiative 2017, n.p.), Rwanda’s government has heavily invested in digital infrastructure to facilitate and support projects that encourage the use of ICTs in rural places such as the eSoko project (a play on the Kinyarwanda word *isoko*, which means market). The purpose of the eSoko project is “to empower farmers to enable them make more informed market pricing decisions and ultimately more successful farming.” (The Global e-Schools and Communities Initiative 2017, n.p).

Through the use of their mobile phone short message service, which requires no access to Internet, Rwandan farmers can check prices of different agricultural products and identify the markets where they would get a better deal. Given that such systems target farmers who are mainly uneducated, they contradict claims that the Rwandan governments’ “digital transformation” agenda is only fuelled by expectations that it will “boost local entrepreneurship among the educated youth and attract international investment” (L. Mann & Berry, 2016, p. 134). Payments through mobile phones (mobile money) and checking prices of food crops using mobile phones are some of the technology-mediated practices that no longer considered the territory of the rich or educated, but rather something that anyone can do, be they young or old, educated or otherwise.

The increasing access to mobile phones has also significantly revolutionised the delivery of health services in Rwanda. For instance, in 2016, Babylon, a digital health provider launched its services in Rwanda, allowing Rwandans to access healthcare services through their mobile
phones. As of 2021, the company boasted more than two million registered users (in a country of about 13 million people) and more than 1,300,000 consultations (Babylon, 2020; Babylon Rwanda, n.d.). These are achievements that were hardly imaginable in 2000 when Vision 2020 was launched.

Also, in connection with the use of mobile phones in the health sector, the government and private companies have been giving smartphones to Community Health Workers and advisors—i.e. citizens trained to serve as points of contact for health, nutrition, and hygiene to their community. They use these devices to receive health-related information but also report health-related developments in their communities to government agencies such as the Rwanda Biomedical Centre. Many of these community health workers used their smartphones to report information about the coronavirus pandemic in their communities (Twarabanye, 2020).

This is in addition to the setting up of the Rwanda Health Management System which connects almost all health centres across the country and allows the tracking of health-related data using an short message service monitoring (RapidSMS) framework (GESCI 2017). This use of mobile phones in the health sector adds to other, more top-level efforts to introduce technology to into the Rwandan health system. A noteworthy example here is the use of drones for delivering blood to hospitals across the country. In fact, Rwanda was the first country to launch blood delivery through drones as a commercial service through an agreement with the American start-up Zipline. This has been credited with saving many lives across the country and its success has also led to replication of the model in other countries (Baker, 2017).

Another area in which the digitisation of the Rwanda society is becoming evident related to increased access to Internet broadband. In addition to being one of the early adopters of the one laptop per child (OLPC) project, which sought to make access to laptops accessible to school children (OLPC 2011), the country has also made internet accessible in schools one of its priorities. This is seen as the next stage of its digitisation since physical access to devices has significantly improved. For the last decade, the Rwanda Government “has invested considerable resources in the country’s information and communication infrastructure” (L. Mann & Berry, 2016, p. 134) and a significant part of this has been on providing access to broadband Internet. The country has heavily invested in a national internet fibre optic
backbone which has seen the rolling of a network of optic fibre cable around the country’s capital, districts and border posts (MINICT, 2018). Relatedly, in 2019, Rwanda launched its first satellite, *Icyerekezo* (Kinyarwanda word for Vision), in collaboration with the UK-based firm, OneWeb. This satellite launch is aimed at providing reliable Internet access to rural schools across the country in places where fibre optic cables are harder or more expensive to reach (Oni, 2019; Umucunguzi, 2019).

All these projects are informed by the Rwandan government’s goal of achieving broadband for all by 2024 as well as its vision for a country in which “Broadband is considered ‘basic need’ for all Rwandans” (MINICT, 2018, p. 14). This ambition to make access to internet a reality for all has led some observers to conclude that “Data coverage is part of the grand plan to turn the predominantly agriculture-based country into an IT hub for the region and Africa.” (Giuliani 2021, n.p.). This future-oriented vision is different from the survival efforts that prevailed in the immediate aftermath of the Genocide where the main concern was safety and survival.

The increasing access to Internet has significantly impacted on the provision of and access to Government services, which has been steadily moving online. In 2014, as part of its “one-stop” e-government project, the Government launched *Irembo* ([https://irembo.gov.rw/](https://irembo.gov.rw/)), an e-government platform aimed at making the delivery of government services accessible, transparent and efficient (Bakunzibake, Grönlund, & Klein, 2018). Through *Irembo*, described as “Rwanda’s single window for e-government” (MINICT, 2018; Twizeyimana, Larsson, & Grönlund, 2018, p. 21), Rwandans and foreigners eligible can apply and pay for documents and services ranging from family, identification, immigration documents (passports, National IDs, driving licences, birth certificates, visas, marriage certificates), land titles, health services (such as booking COVID-19 tests), booking visits to museums, etc. As of 2021, a visit to *Irembo* website showed that its users could access up to 78 services from the government and/or its agencies, thereby making it central to the Rwandan government’s services provision.

The diversity of these initiatives to digitise the Rwandan society have made the ICT discourses pervasive in Rwandan society, especially in education where students and teachers are constantly reminded that the country’s future depends on the adoption of these technologies and their effective use. In fact, there are constant campaigns and initiatives that popularise the use of ICTs. These pro-ICT initiatives have also had a significant effect on educational
practice in this country that did not have a mobile telecommunication service until 1998. Though ICT awareness was almost non-existent for the cohorts completing teacher education in the mid-2000s when even teacher educators hardly owned a mobile phone, the cohort of student-teachers on the programme at the time of this study had normalised the use of mobile phones, laptops and the internet. This is because many of these students were in primary and early secondary school when schools started receiving government-sponsored OLPC laptops in the mid to late 2000s. At this time, mobile phones were becoming cheaper and access was significantly improving.

The introduction of OLPC devices in schools also meant that parents’ awareness of ICTs started increasing since parents are kept updated on their children’s’ access to government-sponsored devices. In some private schools, parents are asked to make contributions for school to purchase computers for their children to use in schools; while in higher education specifically, institutions are constantly encouraging ownership of personal laptops, with some giving laptops to their employees as part of the necessary package to fulfil their duties as students and staff. Specifically, all government-funded students in higher education institutions for instance now receive personal laptops as part of their study funding.

Thus, for teachers being trained in this context, the use of ICTs is an integral part of their daily lives both as every day citizens but also as professionals whose students are immersed in the everyday discourses that portray the use of mobile phones, laptops and the internet as necessary to the enjoyment of their lives and rights as citizens in an increasingly digitised society. This is particularly so for teachers being trained after the country launched its landmark programmes such as the one laptop per child, the national fibre optic backbone, e-soko, irembo which have been widely popularised and their use has been integrated into the daily lives of Rwandans.

With increased access also comes increasing demand to develop the skills to use them and teachers are primarily targeted to develop these skills among the children. The Government wants to achieve digital literacy for all and states that:

Rwanda is determined to become a knowledge based economy. Everyone in Rwanda, regardless of their socio-economic-political stature, needs to be digitally literate to transform their lives and contribute to the society (MINICT, 2018, p. 14).
This is meant to address the country’s “lingering digital skills gaps” that is seen as “a key cross-cutting barrier to increasing digital adoption and expanding digital innovation.” (World Bank, 2020, p. 18). Hence, even when they may not be using ICTs, educational practitioners are aware that they are expected to become (and act as) educational ICT users. Pre-service teachers who grew up and conduct their training in an environment imbued with these pro-ICT discourses are therefore unlikely to disconnect the use of ICTs from the kind of teachers they portray themselves to be or feel they are being portrayed as being by those they interact with in their professional practice.

The next section provides more clarity on how Rwanda’s educational digitisation has worked in tandem with the social digitisation discussed in this section.

1.2.2 The digitisation of education in Rwanda

Since the inception of Vision 2020 which set out the country’s socio-economic agenda, “The Rwandan government views Information and Communication Technology (ICT) as a key tool for transforming the economy, with the education sector playing an important role in developing the necessary human resources (Rubagiza, Were, & Sutherland, 2011, p. 37). In education, the government “committed to the rapid deployment, utilisation and exploitation of ICTs within the educational system from primary school upwards” (Dzidonu, 2010, p. 9). Yet, the progress of this much wanted digitisation disappointed from the beginning. The 2003 Education policy noted that “ICT is at its embryonic phase in the education system, even though some initiatives have been started for teaching and learning using ICT facilities” (MINEDUC, 2003, p. 15).

Recent national statistics indicate that access to computers in schools has significantly increased. In primary schools for example, the student-computer ratio stood at 10:1 in 2019 (down from 13:1 in 2016) while the teaching staff computer ratio was at 14:1. At the same time, “schools having ICT for teaching and learning increased from 55.4% in 2018 to 58.0% in 2019.” (MINEDUC, 2019, p. 32) The trend is similar in secondary education where 66.6% of schools have access to “ICT for teaching and learning” while the percentage of those with internet access was 61.1% in 2019, up from 52.9% the previous year. Here, the student-computer ratio has significantly decreased from 27:1 in 2016 to 8:1 in 2019. This improvement also extends to secondary school teachers whose access to computers has improved from
14:1 in 2016 to 4:1 in 2019 (MINEDUC, 2019, p. 32). The Ministry of Education interprets these statistics as an “indicator that the number of students using computers in schools is increasing and teaching and learning is facilitated by using ICT (66.6%)” (MINEDUC, 2019, p. 55). In higher education, which includes the teacher training college where the current study was conducted, statistics indicate that issues of access to computers are quasi-inexistent as “computer-student’s ratios are 2:1, 1:1, and 1:1 respectively for students, academic staff and administrative staff.” (MINEDUC, 2019, p. 88). This increasing access to ICTs signals a need to understand the identity of teachers expected to use these tools and how their technology-using teacher identities are negotiated in their educational contexts. This is because of an acknowledged link between teachers’ identities and their instructional practices (Madden & Wiebe, 2013).

One of the reasons for the increasing ICT access in Rwandan schools has been an early subscription to the One Laptop per Child (OLPC) project as early as 2008 with pledges to have half a million OLPC devices in school reaching more than a million students (OLPC Rwanda, 2011a). The OLPC stemmed from an interpretation of the ‘learning by doing’ approach of constructionism (Andersson & Norrmalm, 2010) with the aim of making laptops devices at an affordable price for children in developing countries. In Rwanda, the OLPC project aimed for the “enhancement of education through the introduction of technology in primary schools” by allowing “primary school students early access to computer skills and computer science understanding while expanding their knowledge on specific subjects like science, mathematics, languages and social sciences through online research or content hosted on servers” (OLPC Rwanda, 2011b).

Since then, expectations from a well-integrated ICT in education are enormous, starting from a contribution to the quality of education which can unlock student potentials (MINEDUC, 2013). It was argued that the use of OLPC laptops would give Rwandan schoolchildren an opportunity “to circumvent the shortfalls of their anachronistic national curriculum and poorly trained teachers” (Wadhams, 2010). Teachers reportedly found the technology very helpful in teaching languages, especially vocabulary and pronunciation (Fajebe, Best, & Smyth, 2013). These micro-successes encouraged even more ambitious plans for the digitisation of schools. The Revised Vision 2020 planned Internet coverage “for all secondary schools and for a large number of primary schools” (Government of Rwanda, 2012). However,
this ambition has remained widely unachieved because official statistics indicate that in 2019, only 61.1% and 34.8% of secondary and primary schools respectively had internet connectivity (MINEDUC, 2019).

Some observers have noted that the digitisation of the education sector is the only chance countries like Rwanda have to enter the global arena of modern economy.

“Rwanda’s vision is to transform the country from one based on agriculture to an information and knowledge-based economy. It is a visionary goal, and perhaps one of the only ways poor countries can join the league of middle-income countries in our increasingly information-based globalised world.” (Ensign & Bertrand, 2010, p. 120)

While the priority has been on primary and secondary schools, there have also been initiatives to improve ICT penetration in higher learning institutions. In 2014, the Government signed an agreement with Positivo BGH, an Argentina-based ICT company to start assembling low cost laptops in the country. This was followed in 2016 by the launch of “a Laptop Purchase Program for University students and lecturers in both public and private institutions. The program is part of the Ministry of Youth and ICT (MYICT) “Viziyo” (vision) initiative that aims to accelerate penetration of smart devices in Rwanda and increase countrywide broadband penetration” (Ministry of Youth and ICT, 2016). Among beneficiaries of this programme are preservice teachers who are expected to usher schools into a digital era where “ICT in education shall be considered as the heart of the entire education system” (MINEDUC, 2003, p. 8). Despite these pledges, the country has banned student-teachers from using mobile phones—the most accessible ICT tool in Rwanda (MINEDUC, 2018). This decision appears to contradict the discourses that put ICTs at the centre of education in Rwanda. Because of this, there is a need to understand how teachers negotiate their identities as educational ICT users while working in a system that puts so much hope and trust in ICTs but still lacks the resources worthy of its ICT-mediated development ambitions.

Nevertheless, the Rwandan context is still a technologically under-resourced context. Throughout this study, I use the concept of technologically under-resourced context to signify a context in which ICT access and skills, training and usage are limited for educational practitioners. This understanding draws from the idea of contexts “where the costs of hardware and infrastructure generally limit access to technology” (Hockly, 2014, p. 79) and
the concept of “low connectivity environments” which denotes poor access to Internet connectivity (Tadesse, Allen, & Mitchell-Kernan, 2021). The concept of technologically under-resourced context used here is also connected to the concept of “difficult circumstances” in English language teaching contexts whereby large classes, and a lack of access to resources and adequate teacher skills are perceived to be key characteristics (Kuchah, 2018; Shamim & Kuchah, 2016).

Although not exclusive to under-resourced contexts, access to information and communication are particularly acute in these contexts (Lightfoot, 2019). Indeed, the evocation of a technologically under-resourced context also implies the opposite type of contexts. These other contexts have been termed “technology-rich environments” and have been conceptualised “as providing access to digital technology, developing skills with digital technology, and enacting and supporting usage of digital technology.” (Zinger, Tate, & Warschauer, 2017). Many countries are trying to reposition themselves by transforming their educational contexts into “technology-rich environments”. Throughout different projects such as the One Laptop Per Child, Rwanda has been very active in what Zinger et al. (2017, 597) describe as “the pursuit of technology-rich classrooms”, mainly because the country still considers itself as technologically under-resourced while “striving to build a knowledge- based economy” (MINEDUC, 2015, p. 1).
1.3 A historical look at teacher training in Rwanda

During the colonial era (1884-1962), the training of teachers was given little attention by the Catholic Church which dominated the educational system. “By the beginning of 1925, the Catholics had 17,475 pupils crammed into their classrooms or being taught in the open air by teachers who barely managed to stay one step ahead of their pupils” (Linden & Linden, 1977, p. 158). Generally, teachers were graduate catechumens who served both religious and educational purposes in Church schools. Even after the Belgian administration started subsidising the Church to improve the quality of education, many of the teachers “trained” only had “basic training” (Linden & Linden, 1977, p. 162). The “most qualified” locally trained teachers were graduates from seminaries since “many former seminarians moved into politics, business, journalism, and education” (Carney, 2014, p. 61). However, many of those who went into teaching were the “embittered and frustrated” who blamed different forms of discrimination for not obtaining positions in administration (Prunier, 1995, p. 33). This would prove detrimental to education, especially regarding its role during the 1994 Genocide.

The need for teachers during the colonial period pales in comparison to the post-Genocide era when the country suffered “a chronic lack of qualified teachers” (Obura, 2003). Teachers were needed to help turn schools that had been “sites of betrayal and massacre” (Arden & Claver, 2011, p. 14) into learning environments. Like in the colonial period, the recruitment process focussed on anyone available by targetting “secondary leavers or even drop-outs to fill posts” in schools (Arden & Claver, 2011, p. 14). Thus, “In 1997, 32.5 per cent of the 20,232 teachers were considered to be qualified” with the rate dropping to 22% of qualified teachers in some districts (MINEDUC, 1998, p. 24). By the early 2000s, it was believed that “half of all teachers in upper secondary schools are probably underqualified, having only an upper secondary school diploma themselves” (World Bank, 2003, p. 7). This underscores the magnitude of teacher training needs in the aftermath of the Genocide.

Given these challenges, the 1998 Plan of Action for Education set out plans to produce qualified teachers. This aligned with the assessment that “Any strategy to improve learning outcomes must seek to raise the educational profile of teachers in that cycle” (World Bank, 2003, p. 7). This needs assessment led to the creation of a preservice teacher training
institution for secondary school teachers, the Kigali Institute of Education in 1999 (Rwembeho, 2009). Since then, teacher education and training has gained momentum.

Today, most teachers meet the minimum teaching qualifications for their teaching levels (primary or secondary). With 98% of teachers said to have the necessary qualifications in 2018 (Umurerwa, 2018), the Rwanda Education Board (REB)—the regulatory body for primary and secondary education—formally informed all districts in September 2018 that teachers without teaching qualifications would lose their jobs by end of the 2019 academic year. It was expected that no unqualified teacher would be in classrooms by the 2020 school year.

An important question this directive raises, in accordance with the country’s interest in the adoption of ICTs in education, is the extent to which the identity of a “qualified teacher” subsumes a technology-using teacher identity. This is why I analysed educational policies to better understand ICT-related teacher identities, rights and duties assigned to teachers and how they intersect with the overall expectations held of teachers in Rwanda. This would therefore allow a better understanding of the training of “qualified” or “competent” teachers based on existing educational policies.

1.4 Current preservice teacher training in Rwanda

Teacher training in Rwanda can be seen to happen at two different stages. The first phase consists of a University/college-based training, in which students spend most of their training at a teacher training college taking a range of courses. The second phase happens in placement schools where the student-teachers spend time practicing the “theoretical training” received at their teacher training colleges. This phase is referred to as the teaching internship throughout. In the next paragraphs, I discuss the structure and provision of pre-service teacher education programme, with a special attention to the training offered by the University of Rwanda’s College of Education where this study was conducted.

1.4.1 University-based pre-service teacher training in Rwanda

Depending on where they will teach, Rwandan teachers have been following different routes into the teaching profession. Students willing to teach in primary school must successfully complete their upper secondary education in a teacher training college (TTC). In 2019, there were 9,320 students enrolled in TTCs, all of which are public institutions as no private institution is accredited to offer teacher training at secondary level (MINEDUC, 2019).
Students planning to teach in ordinary level/ lower secondary required a diploma (A1) in any subject with an educational component. Alternatively, like participants in this study, they would need to complete a bachelor’s degree in a subject with an educational component to be able to teach in upper secondary.

Preservice training for primary school teachers takes three years past the Ordinary level (first three years of secondary), and graduates complete this training at the age of 18-19, which is the age of completion of secondary education. If they decide to continue to higher education for a qualification to teach in secondary school, they have to undertake a two year diploma programme (leading to qualification to teach at Ordinary level) or a three to four year programme—depending on the institution—to become teachers at upper secondary.

Preservice teacher training in Rwanda is offered both by public and private institutions. In higher learning, these institutions require accreditation from the regulator. Preservice teacher training for secondary education is often offered as a combination of two subjects, a major and a minor. A graduate with a Bachelor’s degree can teach her major in upper secondary and the minor in lower secondary. Student-teachers in this study majored in English and were expected to become language teachers in upper secondary.

An important part of today’s teacher training in Rwanda is the fostering of ICT skills that would lead to the use of ICTs for teaching and learning. It is important to note that, while the teaching of ICTs has been an item on the language teacher education programme in Rwanda for some time, and especially at the institution where this study was conducted, the technology landscape and the use of ICTs for teaching on the programme has significantly changed. For instance, the lack of computers that restricted training for instance a decade ago is largely a non-issue as the college has more resources and students have their own laptop devices. For example, when I was enrolled on the same programme a decade earlier, no student on my programme had a personal laptop and very few had mobile phones. On the contrary, not only did the student-teacher cohort considered in this study use smart mobile phones, they also had access to new personal laptops obtained through a government scheme to facilitate their teacher training and ICT skills development and could access books from an online repository.

Educational approaches to ICTs have also changed as the institution has sought to digitise its programmes by embracing a learning management system—Moodle—a significant change
from a time when teachers had to use chalk to write notes for students as the lack of computers and access to internet did not allow even sharing materials with students electronically. Although the use of Moodle is not widely adopted at the University of Rwanda’s College of Education, its availability to lecturers as a tool for classroom use in their teaching suggests a different approach to teaching with technology that did not exist when I was completing the programme. This change of the technology landscape may have, therefore, affected how teacher educators on the programme perceived, compared and positioned their student-teachers and myself. This also means that expectations for ICT use during the practical part of the programme—the teaching internship—have evolved as more schools have access to ICTs that they did not have before.

1.4.2 The teaching internship in Rwandan pre-service teacher education

The acquisition of practical teaching experience before graduation has always been an important component of preservice teacher education in Rwanda. However, the structure of the training component in which student-teachers gain this experience has changed over time. The current compulsory year-long teaching internship for student-teachers studying at the University of Rwanda’s College of Education (where the current study was conducted) is an evolution of an early version known as “school practice”. This new version of the teaching practice for preservice teachers (see Table 1 for details about its structure and components) started in 2012 and involves student-teachers spending an entire school year in a placement school, unlike the school practice where students used to spend no more than one term (2-3 months) in a placement school.

In its Internship handbook, the University of Rwanda’s College of Education describes the teaching internship “as a professional learning bridge between the ending of pre-service professional preparation and the first year of teaching” “in which interns are expected to consolidate their knowledge and experience across all facets of the role of the teacher in the school.” (KIE, 2012, p. 2) The University of Rwanda’s College of Education maintains that the internship “provides an opportunity to further develop skills in teaching and for interns to be mentored in preparing themselves as thoroughly as possible for their early experiences of teaching.” (KIE, 2012, p. 2). The teaching internship is conceptualised around a trptic relationship between the Student-teacher (Intern), the cooperating teacher (mentor) and the
university supervisor. It is through this relationship that student-teachers are expected to hone their practical teaching skills and become fully-fledged classroom teachers.

The student-teachers’ ability to meet internship outcomes is assessed against ten standards that range from classroom management to knowledge of the subject matter, content delivery and self-evaluation (see Table 1). This assessment happens through formative assessments by mentors, summative assessment by university supervisors and through action research written by interns and submitted to the university at the end of the internship for grading by university supervisors. The formative assessment of the internship falls within the following “5 main responsibilities for the mentor who conducts formative assessments during the internship:

- Direct the day to day activities of the intern, providing opportunities for them to become engaged in all steps of the teaching assignment;
- Support and encourage the intern in their teaching and action research;
- Observe their teaching and give them feedback, coaching and follow-up;
- Assess their teaching and
- Prepare records of the marks awarded for teacher training institution moderation and deliberation processes.” (KIE, 2012, p. 11)
### Table 1. A snapshot of the teaching internship at the College of Education as depicted in the Internship Handbook

<table>
<thead>
<tr>
<th>Duration of internship</th>
<th>Interns Teaching Load</th>
<th>Expected duties and attitudes</th>
<th>Internship supervision</th>
<th>Assessed Standards</th>
<th>Types of Internship Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>The internships lasts one academic year (i.e., 2 semesters)</td>
<td>Assumed gradually, starting with low teaching load</td>
<td>Maintain an up to date file of mandatory documents: written lesson plans and scheme of work</td>
<td>Maintained and updated regularly</td>
<td>Standard # 1: Teachers know the subject they are teaching</td>
<td>Formative by mentors (40%)</td>
</tr>
<tr>
<td>Internship year (start and end) is determined by the school calendar</td>
<td>Interns in Sciences: 6 to 8 hours per week</td>
<td>Keep a monthly reflection journal on lessons learned and share it with the mentor and supervisor for progress monitoring</td>
<td>Use predetermined criteria to evaluate the intern (provided by the teacher education institution)</td>
<td>Standard #2: Teachers know how student grow</td>
<td>Summative assessment (supervisors) (20%)</td>
</tr>
<tr>
<td></td>
<td>Interns in social sciences and languages (e.g., English): 8 to 12 hours per week</td>
<td>Partake in school duties and responsibilities (“classroom instruction and planning, student assessment, parent-teacher meetings, staff meetings, supervisory duties, observing other teachers.”)</td>
<td>Mentor produces final report for the teacher education institution (report co-signed by the intern and the mentor)</td>
<td>Standard #3: Teachers understand that student learn differently</td>
<td>Action Research Report (40%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“dress professionally, be neat and well-groomed at all times”</td>
<td></td>
<td>Standard #4: Teachers know how to teach</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>“maintain ethical conduct by refusing to speak in disparaging terms about members of the staff, students, the administration, or other interns”</td>
<td></td>
<td>Standard #5: Teachers know how to manage a classroom</td>
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<td>Standard #6: Teachers communicate well</td>
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<td>Standard #7: Teachers are able to plan different kinds of lessons</td>
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<td>Standard #8: Teachers know how to test for student progress</td>
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<td>Standard #9: Teachers are able to evaluate themselves</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Standard #10: Teachers are connected with other teachers and the community</td>
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</tr>
</tbody>
</table>
Unlike the formative assessment that is expected to happen on a regular basis, the summative assessment is anticipated to take place once a teaching term whereby a supervisor would observe and assess an intern’s teaching for a 50 minute session. Part of the summative assessment is the internship report (action research project) that is submitted at the end of the internship. The action research report is used to assess student-teachers’ ability to reflect on challenges faced in their teaching and propose solutions that suit their context. Action research projects are an important part of the student-teachers’ work and are supervised by a university lecturer who gives them feedback on this work before they submit the final report.

This exercise of choosing a “challenge” from their internship practice, the requirement to reflect on the identified challenge and research it and then propose a research-informed workable solution that student-teachers from the College of education are expected to undertake is akin to what has been referred to in other teaching contexts as “puzzles” (Stelma & Kostoulas, 2021). Similar to reflection on teaching puzzles, the writing of the action research report on the Rwandan language teacher education is expected to result from students’ ability to reflect on their practice and propose practical solutions, thereby showing that they can solve pedagogical dilemmas in their context. This is potentially why students are also encouraged, as part of their internship practice, to keep a monthly “Reflection Journal” in which they “reflect upon the activities of the month and the things learned” (KIE, 2012, p. 9). However, the fact that students are advised that their “reflection is shared with your supervisors and your Mentor as an important means of communication and monitoring your progress;” (KIE, 2012, p. 9) could arguably make these reflections more geared towards satisfying the “progress monitoring” purpose rather than really making sense of the practice from which they result.

Action research reports replaced the end-of-programme dissertations that existed in earlier versions of the programme before 2012. Unlike the action research reports, these end of programme dissertations were not required to be exclusively focussed on the intern’s teaching experience. The student-teacher could choose any topic of interest and “research” it regardless of its connection to their experience in the classroom. Thus, while I am a graduate of this programme, having graduated before the overhaul of the internship, I was never required to write this action research but rather a “dissertation”.

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All in all, the student-teachers’ internship is seen as a place for them to develop practical teaching skills and reflect on their practice. This is assessed formatively and summatively by mentors in the placement school and the university supervisors respectively. It is noteworthy that this new approach to the teaching internship—a longer period in school and a focus on reflective practice and action research—provides an opportunity that did not exist before for student-teachers to develop practical skills and a better understanding of their future teaching contexts.

In its current form, the teaching internship takes place in the final year of the programme. Student-teachers spend an entire academic year in school where their “teaching experience is a full time commitment” even though the college recommends that “should not start out by carrying a heavy teaching load” (KIE, 2012, p. 4). The University recommends 8-12 hours of teaching load for interns in social sciences and languages (see table above), a category that includes student-teachers in this study.

Although interns take on teaching duties, they are still “considered learners at this stage in their programme” and “must be supervised by the Mentor at all times possible” (KIE, 2012, p. 4). During the internship, they are also “observed, supervised and evaluated by supervisors from the teacher training institutions” (KIE, 2012, p. 5). This is why in this study, I refer to them as student-teachers to acknowledge their double status as students on the language teacher education and classroom teachers in their placement schools. Officially, three supervisory observations by teacher educators are required throughout the duration of the internship. However, participating student-teachers and teacher educators reported only one such observation in the 2019 internship.

1.5 Social status of teachers in Rwanda

The Rwandan society has always held teachers in high regard. Before the Genocide, teachers were the most visible among a small number of Rwandans who had received formal education and were regarded as the symbol of “the elite and the educated in Rwanda” (Obura 2003, p. 48). Using this social prominence, “Not only did teachers enforce ethnic segregation at schools, but they also employed divisive language and stereotypes which imparted on their students strong ethnic consciences” (Byanafashe & Rutayisire, 2016, p. 2). Essentially, in the post-genocide Rwanda, the teacher image was tarnished as many of them had become
notorious genocide perpetrators, murdering their colleagues, students and neighbours (Arden & Claver, 2011; Byanafashe & Rutayisire, 2016; Obura, 2003).

Hence, for the post-genocide education system to succeed, teachers also needed to change, both in their professional identities and duties to the country. This implied a process of restoring the social value and trust that teachers enjoyed before. They were assigned a key role of using education to convey values aimed at mending the broken Rwandan society by developing among their students “(i) the ability to understand the political problems of the country and to help to resolve them in a spirit of tolerance, freedom and justice; (ii) the ability to integrate into society and to promote the development of the country” (MINEDUC, 1998, p. 14). In fact, many teachers became actively involved in the post-genocide reconciliation processes by acting as conciliators and judges in the traditional courts (Gacaca courts) that dealt with Genocide cases at grassroots level. However, there was still a need for training teachers to meet the needs of the country.

It is within this historical background that the student-teachers participating in this study are trained to become teachers. They are fully aware of the devastating impact of the Genocide but also their role as teachers in dealing with its consequences by embracing the Government’s socio-economic ambitions as stated in various policies, including educational policies. The adoption of ICTs in education, which has been touted as the key to achieving Rwanda’s post-genocide economic transformation may therefore represent for these student-teachers more than a pedagogical component of their self-image and identity as teachers in Rwanda. This is why my goal in this research has been to explore how student-teachers would negotiate technology-using teacher identities in a context where the country’s painful history, its economic challenges and ambitions and the image and identity of its teachers are so intricately tied together.

1.6 Conclusion

As shown in previous sections, the Rwandan context is unique in its history and educational practice. As a result of this, it has adopted development ambitions in which the use of ICTs and the English language are key to their attainment. In the education sector specifically, the hopes that ICT integration will help solve endemic issues of educational access, quality and inclusion despite an acknowledged lack of ICT resources warrants an inquiry into how English
language teachers negotiate identities that enable them to meet or miss these socio-economic expectations through their educational practice. Hence, in this study, I focus on the teacher training process as the route through which teachers are prepared to become the kind of teachers ICT policies, teacher educators and/or students in schools consider competent for the current ICT-dependent educational goals. This is why, as I discuss in Chapter 4, data used in the study comes from Rwanda’s educational ICT policies and teacher education programmes and interviews with teacher educators and student-teachers.

The next chapter provides a review of the literature on teacher identity and how it is shaped by different factors such as the context described above. I then use the insights from the literature to highlight why a study like this is needed.
Chapter 2: Language Teacher Identity: A literature review

In this chapter, I review the literature on language teacher identity to understand its meaning, components, its development and potential influences. I take an identity approach in this study because of the relevance of identities in people’s personal and professional lives. In later parts of the chapter, I discuss how teacher identity develops through teacher education and the internship and the link between teacher identity and context.

2.1 Defining teacher identity

Teacher Identity is a concept that many scholars find ‘elusive’, ‘complex’ and ‘hard to define’ (Barkhuizen, 2016b; Beauchamp & Thomas, 2009; Day, Kington, Stobart, & Sammons, 2006; Gee, 2000; Tao & Gao, 2018). For language teachers, their identity has been characterised as a “multifaceted and dynamic” concept (Avraamidou, 2014, p. 225) that refers to “an internalized set of meanings associated with the role of language teacher that are negotiated and constructed in interaction with others and/or generated and maintained by oneself” (Martel, 2016, p. 89). Since language teacher identities (LTI) develop both internally (intrapersonal) and externally (interpersonal), they develop from what we know, feel and believe, and through our experiences and interactions. Hence, they are “cognitive, social, emotional, ideological, and historical—they are both inside the teacher and outside in the social, material and technological world.” (Barkhuizen, 2016a, p. 4). A LTI “evolves as contexts, learning and teaching approaches and student/teacher relationships change” (Livingston 2016, p. 401). Thus any changes in practice within a school system are likely to prompt the formation of new teacher identities (Urrieta, 2007; Vásquez, 2011; Wolff & De Costa, 2017).

In this study, I use the concept of digital teacher identity (DTI). A DTI is conceptualised as a dynamic interaction between a teacher’s ICT skills, beliefs, attitudes, predispositions, practices and context that shape how a teacher feels, talks, acts and views themselves and others with regard to the use and application of ICTs in the preparation, delivery and support of learning and instruction.

In the next sections, I review the literature to unpack key features of teacher identity in connection with educational ICT use.
2.2 Practice, reflection and teacher identities

Many scholars agree that a teacher identity develops through practice (Beauchamp & Thomas, 2009; Holland, Lachicotte, Skinner, & Cain, 1998; Miller, Morgan, & Medina, 2017; Yuan & Lee, 2014). In this regard, Kanno & Stuart (2011, p. 239) maintain that “the actual experience of teaching is what enables student teachers to make a transition from aspiring to become a language teacher to actually being one.” This underscores the importance of practical experiences such as the teaching internship in shaping student-teachers’ identities. In contextualized practice, teachers enjoy different forms of interactions that shape their perceptions of themselves as teachers (Beauchamp & Thomas, 2009, p. 178). In fact, it is through professional interactions that teachers and prospective teachers “develop a sense of identity that changes through maturation and experience” (Bower & Parsons, 2016, p. 745).

Although identities develop through practice, the process of identity development is never complete and remains a life-long work-in-progress (Bower & Parsons, 2016; Urrieta, 2007) or as Miller (2009, p. 173) calls it, “a process of continual emerging and becoming.” Practice helps comprehend teacher identity as a dynamic “enactment of agency” (Miller, 2009, p. 176) “through pedagogical practice” (Barkhuizen, 2016a, p. 9) that is more about ‘practicing, rather than mastering’ (Miller et al., 2017) [original emphasis]. Since practice improves with experience, teacher identities therefore evolve with the experience of the teacher. Accordingly, teacher identities are continuously reshaped “while never quite achieving coherence among their different facets” (Benson, 2016, p. 20). Thus, teacher identities cannot be possessed as an object but rather performed at a specific time and place (Barkhuizen, 2016a, p. 6).

For pre-service teachers in a teaching internship, practicing the use of technology plays an instrumental role in their developing teacher identity. In such a practice, they would experience educational technology in action and can reflect on their emerging identities as technology using teachers. In fact, Farrell (2016) and Beauchamp & Thomas (2009) see teacher identity as developing through practice but also through reflection on that action. Beauchamp & Thomas (2009, p. 182) argue that “when we consider identity in the development of either student teachers or beginning practitioners, we must include the notion of reflection as central to this development.” During the internship, student-teachers are engaged in an ongoing process of “understanding who they are and who they desire or
fear to be” (Barkhuizen, 2016a, p. 4). In this process, reflection on their personal, social and professional experiences help them co-construct meanings of what it means to be a teacher (Buckworth, 2017, p. 14), and thus “become more aware of their identity roles” and all its influences (Farrell, 2016b, p. 186). Reflecting on how ICTs are used in their context and how they use or could use them in their own teaching may therefore impact significantly on student-teachers' practice and identity as technology using teachers.

It is because of this importance of reflection on a teacher identity that teacher education researchers now explore it “as a skill and identity development node” (Kiely, 2019, p. 87). For example, De Costa (2015) analysed reflections of a Korean student on a masters’ degree in TESOL and followed her throughout the program and in the early months of teaching. Findings of the study revealed that through reflections on personal experiences and students’ learning needs, the teacher adopted a learner centred teacher identity that led to student-centred pedagogy in her teaching. In another study that focused on the identity of a Non-native English speaking teacher, Wolff & De Costa (2017) noted a positive impact of reflexivity on their identity. Similarly, in their description of a continuous professional development (CPD) initiative that prompted higher education teachers to engage in a “data-driven reflective practice”, Slimani-Rolls & Kiely (2014) noted that their “CPD initiative helped teachers to understand their teaching better, particularly in terms of the consequences of their actions on their students’ behaviours.” (p. 433). This shows a positive effect of reflection on teachers identity and practice and therefore echoes the calls for teacher education programmes to make “constant reflexive practices” “a crucial element in language teacher education, no matter the context” (Wolff & De Costa, 2017, p. 87). In this study, I prompted student-teachers and their teacher educators to reflect on their educational technology practices/experiences and used their reflections to understand the kind of teachers they were (see Section 4.5.2)

2.3 The contextual nature of language teacher identity

One of the key observations about teacher identity is that it develops within a context and adapts to it. The fact that teachers’ interactions with their educational context can shape their teacher identity attests to the “social nature of teacher identity” (Barkhuizen, 2016a; Beauchamp & Thomas, 2009; Cheung, 2015).
Language teachers’ context plays an important role in shaping their identity (Beauchamp & Thomas, 2009; Gee, 2000; Pennington & Richards, 2016). A language teacher identity acts as “a reflection of the context or activity in which the individual is situated” (Pennington & Richards, 2016, p. 6). For language teachers, the understanding of their context is therefore crucial to the development and negotiation of their technology-using teacher identity. Beauchamp & Thomas (2009, p. 184) explain that

The school environment, the nature of the learner population, the impact of colleagues and of school administrators can all be influential in shaping a student or new teacher identity, as of course are their own experiences as learners in schools.

The context in which student-teachers start their teaching is even more important because, as Beauchamp & Thomas (2009, p. 180) point out, at this stage of their careers, their teacher “identities are only tentative”. Hence, the lack of experience and fully developed teacher identities as well as the existence of potentially conflicting demands in their contexts arguably make student-teachers doing an internship “feel the impact of a community context much more strongly” than their experienced colleagues (Beauchamp & Thomas, 2009, p. 180).

Although context shapes teacher identity, the kind of influence context has on teacher identities depends on how individual teachers interact with the context. This is because in the same context, “teachers learn professional characteristics that are adopted by individuals in unique ways.” (Beauchamp & Thomas, 2009, p. 177). In any context, teachers’ personal dispositions make tools mediating the development of teacher identity “a barrier to expression of teacher identity...or, alternatively, a factor enhancing identity” (Hadfield, 2016, p. 255). We see an example of this from Hull, Scott, & Higgs (2014, p. 59) where digital tools used in a preservice English teachers course gave student-teachers different perceptions of themselves, one reportedly admitting that some technologies made her feel like “a number on an assembly line” or “a faceless person commenting on a discussion thread” in contrast with other student-teachers who believed the technologies had allowed them to have control over what and who they wanted to be.

A key element of the context in the development and enactment of teacher identity is that it can influence the teacher’s agency and therefore influence how or if they apply their knowledge and skills. As previously observed, “while teachers may come to a situation
equipped with substantial capacity (e.g. skills and knowledge) and strong educational aspirations, innovation may simply prove to be too difficult, or too risky to enact.” (Priestley, Biesta, & Robinson, 2016, p. 143). This is particularly so in contexts where access to resources (e.g. ICTs) may be prohibitive even for the most ardent of teachers. Therefore, there is a need to understand teachers, and especially how preservice teachers develop digital teacher identities in educational contexts where they are “enabled and constrained by their social and material environments” in their agentic actions (Priestley et al., 2016, p. 137). This necessitates an examination of the policy context in which teachers operate. This is why educational ICT policies in Rwanda are analysed in this study to understand the ICT-related positions and identities they assign to teachers.

2.4 Teacher Identity Negotiation and Development

Speaking of social identity, the philosopher Kwame Appiah observed that one of the common things about identities is that “they matter to people.” (Appiah, 2018, p. 9). Hence, it is because teacher identities matter to them that they invest various resources (material and immaterial) in negotiating and seeking recognition as inhabitants of certain teacher identities more than others. For example, it matters for teachers to be recognised as technology users if this is a valuable identification in their educational context. In such case, teachers will seek to acquire knowledge and skills and engage in practices they need to be recognised with this identity. This is because “we learn ‘something’ because we want to become ‘somebody.’ Identity signals the kind of “somebody” we want to become (e.g., a “language teacher”) and autonomy signals our capacity to channel learning efforts in that direction’ (Benson, 2016, pp. 19–20).

According to Yuan & Burns (2017), “the process of identity construction is participative through engagement, imagination, and alignment, it is deeply entangled with various power relations in the communities of practice where the issue of negotiability is at play” (p. 732) [original emphasis]. Although teacher identities are negotiated, the negotiated identity may either be recognized or marginalized. In both cases, identities will be reshaped as the recognition may galvanize the individuals to enact their identity. Alternatively, they may be dispirited as they attempt to legitimate “their own position within their prospective working communities” (Gu & Benson, 2015, p. 189). This is why teacher identity research often uses autobiographical models such as the Tree of Life which “reveal important historical factors,
power differentials, and/or cultural values in teachers’ lives” that have trans(formed) their teacher identity (Farrell, 2016b, p. 186).

Teacher identity development processes such as “identification and separation” (Meijer, 2017) and the “interpretation and reinterpretation” (Sutherland, Howard, & Markauskaite, 2010) lead to what Meijer (2017) refers to as a "crisis", one that is beneficial to the identity formation of teachers. “The word ‘crisis’ indicates that a struggle is taking place and this usually involves the development of a new part of your identity” (Meijer, 2017, p. 214). While some may want to avoid this crisis, and look for a better, smooth entrance into the profession, identity development always involves a crisis and “teachers-in-training cannot easily get around or avoid identity development” (Meijer, 2017, p. 219). In fact, the crisis is particularly healthy professionally because it allows the teachers to discover their best professional selves as they come out of “important confrontations with one’s identity as a teacher” (Beauchamp & Thomas, 2009, p. 184).

In every context, a valuable teacher identity may change overtime at a personal and/or social level and teachers ought to adapt to these changes in order to remain relevant in their educational contexts. Hence,

The "kind of person" one is recognized as "being," at a given time and place, can change from moment to moment in the interaction, can change from context to context, and, of course, can be ambiguous or unstable (Gee, 2000, p. 99).

This underscores that teachers do not have one but multiple identities that they juggle as they change interlocutors and situations (Urrieta, 2007; Vásquez, 2011; Wolff & De Costa, 2017). A teacher identity is thus recognized by those in the teacher’s environment whereby a teachers’ actions and interactions render him/her recognisable as a certain "kind of person" (Gee, 2000, p. 99). These observations underpin the characterisation of “teachers as complicated human beings who alter—and are altered by—the personal and professional contexts and demands of their work” (Olsen, 2011, p. 259). They also show that teacher "identity involves inner commitment" (Kanno & Stuart, 2011, p. 239) by teachers who must exercise their agency in a variety of situations to achieve their professional goals and become their ideal selves or at least be recognised as such (Beauchamp & Thomas, 2009). They achieve this through identity negotiation. For example, a student-teacher may speak and act
differently towards students, teacher educators and mentors depending on the self-image she wants to convey to each of these people.

Because “the significance of teacher professional identity gets negotiated among participants interacting locally” (Cohen, 2010, p. 479), when preservice teachers negotiate a digital teacher identity in an under-resourced context, this identity negotiation must take into account the particularities of that context, including what is considered acceptable strategies for negotiating that identity. For example, novice teachers (and by extension student-teachers) are considered to be restricted in the exercise of their agency and are therefore limited in what they can do to enact their desired teacher identities (Danielewicz, 2001; Day et al., 2006). Because of this, they may resolve to enact “assigned” or “imposed” identities instead of their “desirable” or “chosen” identities (Gee, 2000; Martel, 2016; Toohey, 2016) for fear of practical consequences such as receiving a negative grade during their teaching practice (Du Plessis, Marais, Van Schalkwyk, & Weeks, 2010; Yuan, 2016; Yuan et al., 2016). This results in what Barkhuizen (2016a) refers to as ‘backgrounding’ of their actual identity.

By enacting imposed identities instead of their own, (student-)teachers reconcile “the realities of the classroom and their immediate concerns for survival and preservation of self-worth [which] can be confusing and stressful” (Smith, Geng, & Black, 2017, p. 25). This is what lends credence to Hadfield’s (2016) view of teacher identity as “a construction made up of multiple selves existing in the present as private and public selves and in the future as ought-to and ideal selves, which may coexist harmoniously or be in conflict” (p. 255).

There are various ways in which teachers develop and negotiate a teacher identity. Using previous research, Meijer (2017) explains that teachers go through two separate, opposing processes: identification and separation as they enter the profession. In these identification and separation processes, the author maintains that teachers are trying to establish their similarities and differences with the people who are already working in the field. Meijer’s (2017) vision of this development implies that teachers work in a community where knowledge is co-constructed and shared within the group, thereby allowing for teachers to be positioned on this basis. Relatedly, Vähäsantanen & Billett (2008) identified five strategies (professional development, passive accommodation, active participation, balancing act, withdrawal strategy) used to negotiate identity by vocational teachers during a time of reform. These categories appear as a breakdown of the identification and separation
processes, given that some of them were used by teachers who accepted the reforms and tried to implement them with varying degrees of commitment while others show teachers reluctant to embrace the reforms to the point of resisting and dissociating themselves from the reforms.

2.5 Teacher identity, teacher emotions and the teaching internship

According to Hargreaves (1998) the work of a teacher is “profoundly emotional” (p. 316). Similarly, Nair (2018) noted that “Teaching is emotional and intensely interpersonal; it is also intrapersonal. It is a mix of one-to-one relationships and one-to-many relationships.” (Nair, 2018, p. 46) Teacher identities are not only enacted but also negotiated in settings where the student-teachers has to adopt an identity that has internal (personal) and external (placement school, teacher education provider) significance. Therefore, teacher identity—in its development, enactment and negotiation—involves managing, developing and responding to emotions, both from within and without the teacher.

One of the most important moments of teacher identity development for preservice teachers is the teaching internship. This is a period in which student-teachers experience various emotions. In fact the internship is an “intense period” in the process of becoming that can be characterised as “a time of ‘survival’, adaptation and discovery” (European Commission, 2015, p. 17) because of the identity-altering emotions that it can generate for student-teachers. Sometimes, emotions felt during the internship relate to feelings of unfair treatment by experienced colleagues or mentoring teachers. In one study in South Africa for example, student-teachers complained that their mentors took the mentoring opportunity to do less work, accusing them of being “only interested in offloading their teaching” (Mukeredzi & Mandrona, 2013, p. 145). The authors observed that even when student-teachers were not given too much work by their mentors, they were displeased with their “mentors being too “busy” to devote time and attention to mentoring”(p. 146). Eventually, this mentoring experience had so emotionally affected the student-teachers that one reportedly claimed to have only learned from it “what not to do as a teacher.” (Mukeredzi & Mandrona, 2013, p. 146).

Despite generating teacher identity-altering emotions, the actual role of the teaching internship on student-teachers’ identity development remains contentious. There are views
that student-teachers are properly “tuned” until placement schools reportedly “wash out” the valuable (theoretical) gains acquired during their teacher education programmes (Zeichner & Tabachnick, 1981). This perception of teaching internships comes from the belief that during the internship, student-teachers receive retrograde guidance that has no theoretical grounding but “mostly consist of practical advice from a corpus of craft know-how developed over a time by teachers” (Srivastava, 2000, p. 14). In fact, university supervisors who visit student-teachers during teaching internships are equally criticized for tipping student-teachers’ identities in the wrong direction during the internship. In this regard, some scholars note that the visiting university supervisors’ feedback to student-teachers fails to advocate for the desired changes but instead emphasises on “how things were to be done without asking students to consider what was to be done and why” (Zeichner & Tabachnick, 1981, p. 9). Thus, teacher educators’ feedback may mechanistically impose certain identities to student-teachers without allowing them to understand their value.

However, exposure to negative practices during the internship alone does not mean student-teachers will integrate the practices in their teacher identities. As Yuan's (2016) exploration of the identity construction of preservice English language teachers in China shows, blaming (or praising) the internship for the identities student-teachers develop during a teaching internship could be prejudicial. The two participants in the study were forced to enact their “feared identities” which went against their learner-centred, communicative language teaching leanings. While being emotionally distraught during the internship due to this conflict, they did not relinquish their ideal identities and indicated their willingness to live their ideal identities (caring teacher, communicative language teacher) in their future professional lives as teachers (Yuan, 2016). This account shows that “Individual agency and personal commitments rooted in much earlier experience influence those identities a person ascribes to.” (Danielewicz, 2001, p.54).

There are suggestions that student-teachers struggle to apply what they learn theoretically in teacher education into the internship because of existing ‘discrepancies’ between the two (Ahn, 2011, p. 239). For instance, Yazan (2017) observed that the process through which prospective ESOL teachers “construct and negotiate their identities” leads to “contestation and tensions between what matters to them and what matters to their mentor teacher, supervisor, and school administrators” (Yazan, 2017, p. 6). These tensions also prompt
“associative processes” by which student-teachers compare themselves to their mentors and select parts of their identities that they appreciate to incorporate in their own teacher identities (Danielewicz, 2001, p. 50).

This is the realm of identity negotiation, which is based on how different actors in the context position themselves and each other regarding the kind of teaching taking place during the internship. When student-teachers feel supported, as some in Du Plessis et al.'s (2010) study showed, they identify with their experienced colleagues or mentors as a “role model” to learn from and imitate. Student-teachers go to these “role models” for “valuable advice, creative ideas and tips”, share with them acquired “skills and accomplishments” but also obtain constructive feedback, all of which “enhance the development of their identity as teachers” (Du Plessis et al., 2010, pp. 329, 338). Alternatively, when student-teachers feel unsupported or subject of their mentor’s criticism, they develop feelings of “self-doubt” and become more concerned about power relations with their mentor, which has “detrimental impact” on their developing teacher identities (Cattley, 2007, p. 338).

Overall, the internship is a moment in which student-teachers test the ‘abstract’ “theories and skills” from teacher education through trial and error (Ripamonti, Galuppo, Bruno, Ivaldi, & Scaratti, 2018, p. 7); and “identities do arise through participation in this haphazard, improvisational, and impromptu dance.” (Danielewicz, 2001, p. 61). The teaching internship carries “great weight” not only for teacher educators but also for student teachers who “regard it as the “trial by fire,” the test of “real” experience through which they will finally know whether they can survive as teachers and an opportunity to reconsider their desire to even become teachers.” (Danielewicz, 2001, p. 48). It has the potential to stir student-teachers’ emotions. These emotions cannot only lead to identity changes but will also initiate and underlie student-teachers’ identity negotiations. This is why I use Positioning Theory (discussed in Chapter 3) as a theoretical lens because of its focus on how people negotiate positions, rights and duties, and therefore identities in particular contexts (B. Davies & Harré, 1990; Kayi-Aydar, 2014, 2019).

### 2.6 Teacher identity and ICT adoption in schools

The integration of technology in schools remains a major concern in all educational contexts. Speaking of the United states, Niederhauser & Lindstrom (2018, p. 2) lament that
schoolteachers’ “instructional uses of technology with students remain relatively low and that traditional transmission-oriented pedagogical approaches continue to dominate teachers’ practice.” This realisation comes, the authors argue, after a lot of money was invested in ICT equipment. Such findings underscore the centrality of the teacher, not the technology, in successfully integrating technology in the classroom. Often, there is a failure to maximise benefits from technology results from a view in which

ICT... is perceived as innovative by itself, regardless of the content addressed in its use (e.g., a skill or a concept), its function (e.g., part of a learning task or a communication tool), or its application scope (e.g., school-wide or limited to a discipline within a class). (Nachmias, Mioduser, & Forkosh-Baruch, 2008, p. 167)

Oftentimes, this vison of ICT as innovative by itself is unfortunately prevalent in both developed and developing contexts. In Rwanda for example, (see the recent Education Statistical Yearbooks, MINEDUC, 2016, 2019), access to ICT has become a goal in itself for public and private educational institutions; and educational technology metrics focus on measuring how many devices are available in schools instead of how and how much those devices are being used. While access to technology provides a “fertile environment for technology integration to occur”, teachers’ “behavioural change” is critical in achieving the desired outcomes (Niederhauser & Lindstrom, 2018, p. 3). This is where identity comes into play because for teachers’ technology behaviours to change, their teacher identity needs to be transformed to drive the desired technology changes.

While the “teacher factor” is progressively recognized as a key influence in technology adoption, research in educational technology often focuses mainly on cognitive aspects such as beliefs to explain why teachers (do not) use technology in their classrooms (Ertmer, 1999; Ertmer, Paul, Molly, Eva, & Denise, 1999; Koehler, Mishra, & Yahya, 2007; Kwihangana, 2020). Although teacher beliefs were assumed to be the ‘final frontier’ to cross before technology integration could become reality (Ertmer, 2005); new insights suggest that socio-cultural aspects have a significant impact on teachers’ use of technology (Selwyn, 2017a, 2017b; Somekh, 2008).

While this provides an understanding of the cognitive aspect of teachers’ technology adoption, it fails to generate an understanding of what it actually means (and possibly costs)
for teachers to integrate technology in a teaching context. For example, today’s technology integration expectations are such that teachers must not only use these technologies as learning enhancements; they are also expected to train their students in digital literacy skills that are required of students to succeed in the 21st century society and professional environment (Uerz, Volman, & Kral, 2018). This is why some scholars like Selwyn (2017a, 2017b) advocate for a “socially aware, politically conscious” (2017a, p. 243) approach to educational technology research, arguing that “barriers to technology use in education” “are primarily social.”

In Selwyn’s view, barriers to technology integration in schools “are all issues that are rooted in the social relations, cultures, politics and economics of education.” (Selwyn, 2017, p. vi). Selwyn rejects the claim that some teachers cannot use technology because of “purely technical issues” and sees this as an excuse because “it is much easier for those of us working in education to focus on the practical and mechanistic aspects of technology use, while overlooking wider factors relating to people and places.” (Selwyn, 2017, p. vi). This is why educational technology research should undertake an exploration of “wider factors” shaping teachers’ use of ICTs. An identity lens provides an opportunity to look at teachers’ ICT adoption in this way because of the multifaceted, contextual and multiplicity features of teacher identity (Barkhuizen, 2016a; Beauchamp & Thomas, 2009).

2.7 Researching ICT adoption with a teacher identity lens

Being a teacher in the 21st century is unlike any other time in the profession because education is undergoing significant transformations. According to David Nunan, an established academic in the field of language education, the "major factor that is in the process of transforming education in general, and language education in particular, is technology, which is ubiquitous, and whose impact has not yet been fully comprehended" (Nunan, 2016, p. 168). The key drive of this revolution is the affordances of technology and how these have transformed the learning landscapes. Today, “learning is no longer confined to the traditional school setting, but takes place in several kinds of settings and from several kinds of resources” (Nachmias et al., 2008, p. 164). As a result, these “[t]echnological developments are changing what is required of teachers in several ways.” (Uerz et al., 2018). Lund, Furberg, Bakken, & Engelien (2014) have for example pointed out that teachers need what they called a professional digital competence which includes “generic and specific
teaching-profession skills” to be able to cope with the ever growing technology landscape in schools (Lund et al., 2014, p. 283).

Calls for teachers to develop new identities to be able to integrate technologies are not new. In fact, when Prensky (2001) proclaimed the advent of “digital natives” as the “new kind of learners” and pitied their “digital immigrant” teachers, he did not only assign an identity to these teachers, he underscored the necessity for them to develop a new identity that I call a digital teacher identity. The ubiquity of technology in today’s world has made its presence in the classroom unavoidable and this identity a must-have for teachers. In fact, it is now agreed that “teachers and teacher educators have little choice but to redefine roles and identities”(Nunan, 2016, p. 168) to fit the learning needs in this digital era. The redefinition of new roles involves reevaluating identities and competences.

Unfortunately, the speed at which student-teachers are being prepared for technology adoption remains unsatisfactory even in contexts where access to resources is high. After examining their findings in their study of how teachers’ digital competence were developed through teacher education, Instefjord & Munthe (2017, p. 44) concluded that “digital competence does not have a prominent position in the general programme descriptions or in subject specific descriptions, nor is it found to be specifically mentioned as an expected learning outcome from field placement periods.” As a result, student-teachers are not fully trained, and their digital teacher identities are not up to the challenges of technology integration in their schools.

The relative novelty of modern technologies in language teaching in under-resourced parts of the world also means that we have little understanding of the teacher identities negotiated as a result of using these tools in under-resourced educational settings. Yet, their increasing omnipresence in teachers’ daily lives as resources, materials and learning content give modern technologies a firm grip on the formation of language teacher identities. In fact, it is in awareness of the sensitivity of technology and teacher identity that Toohey (2016) proposed to examine how language teacher identities get created in various milieux, and how these identities get entangled with classroom resources, school and government policies, discourses about learning and teaching, and so on (Toohey, 2016, p. 15).
It is important to note that language teacher identities (LTIs) “are constructed via (or emerge from) interactions (both face-to-face and electronically mediated)” in these milieux (Block, 2016). The resources electronically mediating teacher identity creation (mobile devices, computers, interactive boards, Internet, etc.) lead to a form of identity that is not just a teacher identity but a digital teacher identity that recognises and positions technology-using teachers as a particular kind of teachers within specific learning environments. An understanding of this type of teacher identity is crucial for teachers and teacher educators because technology is shaping language teachers’ identities at unprecedented proportions. Most of the technologies transforming teacher identities are coming into education as "innovative" forms of language teaching practices (at varying degrees depending on the context) that the teachers must embrace. Yet, we know that only “LTI holds potential for shedding light on the trajectories of innovations in language teaching” (Martel, 2016, p. 89). So, the unavoidable consequence of the penetration of these modern technologies in the language teaching arena is that teachers need to nurture new identities that keep them ahead of the digital challenge.

2.8. Conclusion: why this study?

As highlighted throughout this chapter, our current understanding of language teacher identity and how these affect technology integration in schools is still limited. Although there have been lots of research recently on teacher identity and many edited volumes on the subject (Barkhuizen, 2016b; Cheung, Said, & Park, 2015a), these publications reiterate the need for more research for a better understanding of teacher identity. To underscore the difficulty to fully understand teacher identity, some scholars have likened the concept to a “black box” (Henry, 2016). A lot of calls have been formulated for research on different aspects of teacher identity to further our understanding of this complex concept (Borg, 2016; Friesen & Besley, 2013; Hadfield, 2016; Nunan, 2016).

With regard to teachers’ development of a technology user identity, researchers have noted a “paucity” of research that explores how the “digital identity” of teachers impact their pedagogical practice (Nykvist & Mukherjee, 2016). Thus, not only researching digital teacher identity would enrich our understanding of the educational use of ICTs, it would also shed light on student-teachers’ ICT practices and predisposition to using ICTs in their teaching. Student-teachers performance in technology usage will be judged based on their schools,
mentors and teacher educators’ expectations which are themselves influenced by their interpretations of national ICT policies and expectations, among other factors. These experienced educators are figures that can be either role models or anti-heroes in the development of preservice teachers’ identities (J. Williams, 2011).

Hence, the study considers all these intricacies and proposes to explore digital teacher identities of preservice language teachers in Rwanda. With its focus on preservice teachers on language teacher education programme, the study is a response—be it a partial one—to calls for research in preservice teacher education to elucidate how teacher education courses influence identities and how student-teachers negotiate these identities (Donato, 2016; Richards, 2016).

Another equally important motive for this study is that countries like Rwanda, despite their financial constraints, invest a lot in ICTs for education. Yet, outcomes of such investments are hardly understood because of a lack of research on educational ICTs and their impact on learning in developing countries (Kozma & Vota, 2014; Tolani-Brown, McCormac, & Zimmermann, 2009). This study therefore contributes to a better understanding of the adoption of ICTs in the Rwandan educational context by providing a research-based perspective on the identity of the teachers expected to become educational ICT users. This also contributes on a larger scale to the reduction of lack of research that still plagues many developing countries, especially in areas of teacher identity and technology training in sub-Saharan Africa.

The study also contributes to the understanding of how preservice teachers develop and negotiate digital teacher identities; which may further our understanding of technology integration, especially in under-resourced contexts. This is also a partial answer to recent calls for “an inquiry into teacher identity in under-resourced situations, where teachers may have no materials.” (Hadfield, 2016, p. 256).

The study can also be understood as an attempted response to Gong & Lai’s (2018, p. 23) call for research to establish “different dimensions of teacher identity and technology use”. One such dimension that this study explored is the negotiation of digital teacher identity by preservice language teachers in Rwanda. The study valued what Akkerman & Meijer (2011) called micro-analysis and macro-analysis. This was achieved by focussing on how placement
school experiences and interactions with teacher educators led to changes in the kind of
digital teacher identities student-teachers negotiated and enacted in their internship.

Lastly, as shown in *Chapter 1*, the Rwandan context carries its own unique traits that warrant
researching teacher identity in connection with their use of ICTs in education. Rwanda has
made educational ICT a cornerstone of its development goals and, despite limited resources,
pledges to make ICT a means for achieving educational quality and access for all. It is
important to understand how these ambitions of a post-genocide nation betting on education
for a brighter future influence the digital teacher identities of teachers expected to train the
next generation of competent citizens, especially when access to ICT tools and skills remain
problematic.

The study uses positioning theory to explore different aspects of student-teachers’ identity
negotiation through interactions in their educational context. I discuss the relevance of this
theoretical lens in the next chapter where I start by explaining what it is and its components.
Chapter 3: Positioning theory: a theoretical and Analytical Framework

In the previous chapter, I discussed teacher identity, showing that it is developed and negotiated in specific contexts where teachers’ access to resources, practices, reflexivity and emotions all contribute to the kind of teacher identities developed. The underlying argument in the chapter was that teacher identity is individual and psychological but also “a social matter because the formation, negotiation, and growth of teacher identity is a fundamentally social process taking place in institutional settings such as teacher education programs and schools.” (Varghese, Morgan, Johnston, & Johnson, 2005, p. 39).

The complex nature of teacher identity, the disparity between ICT expectations and availability in the study context, as well as the Rwandan teacher’s image in the country’s socio-historical background necessitated a theoretical lens that accounts for such complexities to meet this study’s objectives. After considering alternatives such as Communities of Practice (Wenger, 1998) or Figured Worlds (Holland et al., 1998), I settled on Positioning Theory. “A powerful aspect of the use of positioning theory as an analytic tool is that not only persons and their identities both individual and social, but also societal issues on a cultural level can be tackled with the same conceptual apparatus” (Harré & Van Langenhove, 1999, pp. 11–12). Thus, with its focus on the negotiation of positions, rights and duties, positioning theory (Davies & Harré, 1990, 1999) provides an ideal lens to untangle the complexity of developing and negotiating a digital teacher identity in Rwanda. On a personal level, positioning theory also allows me to account for my own positioning and identity as a language teacher trained in the same institution by some of the teacher educators in this research (see Section 10.1).

In light of this, this chapter has two objectives. The first is to introduce positioning theory, its meaning, its concepts and their relevance to the objectives of this study, i.e. understanding how student-teachers in Rwanda negotiate a digital teacher identity. The second objective of this chapter is to provide details on the operationalisation of positioning theory in the study’s data analysis. The combined discussion of theoretical concepts and their analytical operationalisation intends to provide the reader with a clear and immediate insight into how the theory was used. This decision addresses concerns that researchers fail to clarify how they
identify different positioning theory concepts in their data (Herbel-Eisenmann, Wagner, Johnson, Suh, & Figueras, 2015), one of the major limitations of positioning theory that I discuss in Section 3.4.

3.1 Defining positioning theory

Positioning theory (B. Davies & Harré, 1990, 1999) is a theory built on the assumption that people use speech acts to claim, assign and occupy different positions which change as the conversations unfold in accordance with the ongoing storylines. By considering how people are “located in conversations”, positioning theory explores how individuals gain rights and duties within conversations but also how those rights and duties shape and are shaped by social structures, thereby clarifying the kind of identities they embody (Berman, 1999; Kayi-Aydar, 2019, p. 1; McVee, Silvestri, Schucker, & Cun, 2021). To do this, the theory relies on people’s momentary actions in discursive interactions (Kayi-Aydar, 2019, p. 1). It operates on the basis that everyday life flows constantly through different discursive segments (Herbel-Eisenmann et al., 2015, p. 187). Through positioning therefore, people construct ‘personal stories’ with the intention of making their actions meaningful to the various actors who are located in the conversation (van Langenhove & Harré, 1999, p. 16).

Consequently, Positioning theory’s interest is in how people “do ‘being a person of a certain sort’” through conversations (B. Davies & Harré, 1999, p. 52). Because of this, it is a theory of identity whence identity is understood by exploring how interlocutors engage in a process of identity negotiation by taking up, assigning or challenging rights and duties on a daily basis (Bamberg, De Fina, & Schiffrin, 2011, p. 182; Harré, 2006, p. 302). Kayi-Aydar reiterates this by suggesting that the focus of positioning theory is “the social construction of identities and the world through discourse.”(Kayi-Aydar, 2015, p. 95). For example, while the role of the teacher may be detailed in official documents, like ICT policies in Rwanda, the position of a “good teacher” is likely to change from policy statements to accounts of ICT usage practices and related conversations depending on when and where the conversation is taking place as well as who is part of that conversation. My analysis of educational ICT policies is informed by the views that “The policy contexts in which teachers work and especially the messages transmitted about what are considered appropriate outcomes of teachers’ work have an effect on how teachers reconcile their definitions of identity with such demands.”(Avalos &
Barrett, 2012, p. 78). The use of reflective interviews (discussed in Section 4.5.2) following the Tree of Life approach (Farrell, 2016a) in this study aimed at engaging participants in “reflective talk”, which is considered to be a “central strategy” people use in identity negotiation “to recognise each other’s professional identity bids” (Cohen, 2010, p. 479). This mutual recognition of “identity bids” is the realm of positioning theory and can be understood by using different positioning theory concepts that I discuss below.

3.2 Theoretical concepts in positioning theory
3.2.1 Storylines

Storylines are at the forefront of positioning theory. According to Slocum and Van Langenhove (2003, p. 225), storylines serve as contexts for interpreting or giving meaning to speech actions as a recognisable positioning speech. They constitute “temporal and (hence) a teleological series of customary events, or plots, that are familiar to a society.” (Slocum & Van Langenhove, 2003, p. 225) This is why in some studies of identity, storylines have been likened to narratives (Slocum-Bradley, 2013). As contexts for speech acts, every storyline is as valid as any other as long as it contributes to the sense-making of a speech act. In fact, storylines are only “tools for making sense” (Allen & Wiles, 2013, p. 178) and no particular storyline can be said to be more “objective, true or real” in relation to others (Allen & Wiles, 2013, p. 178; Slocum-Bradley, 2007). Rather, every storyline can only be considered relevant or less so in the interpretation of a positioning act. In a social episode, storylines “overlap, quickly change or remain dominant for a long time” or more than one storylines may be needed to interpret a speech action. (Allen & Wiles, 2013, p. 179; Kayi-Aydar, 2019, p. 7).

There are two types of storylines: the “explicit storylines” in which “positions are predetermined, and there are procedures by which they come to be occupied by specific actor” and “implicit storylines” in which “there is rarely any explicit recourse to plot or scenario” (Harré, 2012, p. 198). In both cases, social/group culture plays an important role in their creation and recognition by providing recognisable patterns of acts to the actors involved (Slocum & Van Langenhove, 2003, p. 227). In this study for example, ICT in education storylines that contain student-teachers’ educational ICT-related positions reflect the technology culture in their schools and the ICT policy discourses which have imbued their educational experiences both formally and informally. This is important because these
storylines carry in them “not only the notion of what is happening (descriptive) but also what should happen (normative).” (Slocum-Bradley, 2007, p. 638)

Storylines interest me in this study because they are not only critical to understanding positions, but also in understanding identity overall (Kayi-Aydar, 2019). The evolving adoption of technology in the educational sector in Rwanda means equally evolving storylines that determine available positions for technology-using teachers. In this way, student-teachers are making sense of their past experiences but also projecting themselves into the future because a storyline is “meaning attributed to sequences of actions and events, or episodes” (Slocum-Bradley, 2010, p. 94). The expectation in this study was that participants use familiar ICT storylines to identify positions they want to take up regarding the educational use of available technologies.

A question often asked is how researchers identify storylines, positions and illocutionary forces when they see them in their data (Herbel-Eisenmann et al., 2015). For this study, storylines were identified by examining participants’ ICT-related discourse in view of finding the different contexts for the positions they claimed for themselves or assigned to others. Since storylines are “contexts of acts and positions” but also “teleological series of customary events, or plots, that are familiar to a society” (Slocum & Van Langenhove, 2003, p. 225); This included events and activities or practices that represented participants’ interest in relation to their or other actors’ ICT-related duties, roles and expectations.

3.2.2 Positions and positioning

Harré and Slocum (2003) state that “a position is to be understood as a cluster of rights and duties with respect to the acts one is enabled to accomplish as an occupant of a position” (p. 125). In this interpretation, a position taken up or assigned to someone carries in it all permissible acts for a person holding that position (Harré & Moghaddam, 2003, p. 8; Herbel-Eisenmann et al., 2015, p. 188).

The definition of “positions” has evolved in later positioning theory writings to become a “cluster of beliefs” about the distribution of rights and duties “and the taken-for-granted practices in which most of these beliefs are concretely realized.” (Harré, Moghaddam, Cairnie, Rothbart, & Sabat, 2009) This means that a position encompasses both the rights and duties
available but also beliefs about how those rights and duties are attained and who can acquire them. Thus, the positions people take up can reveal their worldview. In fact, a person in a given position “inevitably sees the world from the vantage point of that position and in terms of the particular images, metaphors, story lines and concepts which are made relevant within the particular discursive practice in which they are positioned.” (B. Davies & Harré, 1990, p. 46). While serving as a person’s vantage point into the world, positions are also the window through which the “world” sees and recognises that person. Hence, the various positions a person claims and those they reject indicate the kind of person they are or want to be perceived as being.

When a person takes up a position in a discursive episode, their interlocutor also gains or loses rights and duties depending on the storyline because “[p]ositions are reciprocal, in the sense that when one positions oneself, others in the interaction are also positioned.” (Herbel-Eisenmann et al., 2015, p. 188) The reciprocity is often understood in the way that positions appear in dichotomies (or trichotomies) so that one is able to take up a position and not (or in opposition to) the other available positions (Slocum-Bradley, 2010; van Langenhove & Harré, 1999). Therefore, every position taken up will have an opposite positioning effect for the other interlocutor because taking up a position is a statement about the right one has (or others don’t have) to claim a certain right or duty (Harré et al., 2009).

Thus, positions are indicators of power dynamics in a conversation. They “involve changes in power, access, or blocking of access, to certain aspects of claimed or preferred identity, and so on.” (Herbel-Eisenmann et al., 2015, p. 188). Power dynamics are also present in the idea that discontentedly positioned actors have to challenge their positioning to be repositioned. However, these power relations contribute to positions being “socially recognizable categories” (Menard-Warwick, 2007, p. 268). If a teacher claims to be a ‘technology expert’ (a position), this will only carry meaning if the other teachers to whom s/he is speaking understand the social/professional meaning of a ‘technology expert’ in that place and time. Without this recognition, it cannot be possible to accept, reject or challenge the speaker’s right to be so positioned.

To identify positions during my data analysis, I worked on the premise that “a position implicitly limits how much is of what is logically possible for a given person to say and do and
is properly a part of that person’s repertoire of actions at a certain moment in a certain context, including other people.” (Harré & Moghaddam, 2003, p. 5). Following this, I identified positions through the data by examining references (explicit and implicit) to what different actors are perceived to be (un)able to do, allowed to do or not do; but also participants own claims to what they wanted to do or feel they should or shouldn’t do or be(come). Thus, the data was coded based on the idea that by claiming what they or others were doing, could or should (not) do or be, participants were positioning themselves and others. This was particularly important because ICT integration practices involve accepting different “rights and duties” which reflect individuals’ positions in a social episode (B. Davies & Harré, 1990).

In the analysis of positions, I also applied the positioning principle that “Claims to have certain rights and the acceptance or undertaking of certain duties are basic active self-positioning moves.” (Harré & Slocum, 2003, p. 125) Therefore, by examining what was seen as ICT-related rights or duties and which ICT rights or duties were accepted, recommended, rejected or shunned as (un)worthy of integrating into individuals’ ICT practices past, present and future, I identified different positions that actors assigned or were assigned throughout the developing discourse on ICT in education. Thus, participants’ pledges to do things with ICTs, or to meet ICT-related requirements and expectations as well as their perception of being required, expected or obliged to use ICTs was seen and analysed as positioning acts because they implicitly alluded to certain rights, duties or obligations inherent to certain positions.

3.2.3 Prepositioning and indexing

Prepositioning as a concept was provided in later positioning theory literature to clarify ‘ambiguities’ surrounding the different forms of positioning (Harré, 2012; Kayi-Aydar, 2019). Positioning is now understood to happen as a “two-phase procedure” in which prepositioning is the first phase consisting of the establishment of an individual’s “character/or competence” while the second phase consists of assigning rights and duties based on the attributes established in the first phase (Harré et al., 2009). Prepositioning therefore means “ascribing a characterological attribute or revealing biographical incident to someone” that are relevant to the positions assigned to them (Harré, 2012, p. 195).

Like positioning, prepositioning may be either positive or negative and mainly operates by deleting or assigning rights in the form of “You don’t have the right to...” or “It is not your duty
to ...,” and so on.” (Harré et al., 2009) For this study, I consider analysed policies to be prepositioning teachers by providing characterological traits, skills and other attributes expected of student-teachers and which are used to position them and assign them rights and duties in schools. They tell teachers the sort of ICT skills they need to have and the skills and abilities they should be able to display in their practice, hence effectively indicating what kind of persons they have to be or not to be.

Key to the process of positioning and prepositioning is indexing or indexicality, as we will call it throughout. Though not a sufficiently explained concept in positioning theory, indexicality is critical to understanding positions and positioning. Indexicality in positioning theory derives from the “unstable nature of languages” whereby the “significance of utterances is likely to vary from time to time and situation to situation.”(Harré, 2006, p. 304) Speakers use indexicality in “deliberate self-positioning” which occurs in conversations where a person “wants to express his/her personal identity”; it plays a critical role in how people display their personal and social identities through their choices of pronouns and other language and grammatical devices (van Langenhove & Harré, 1999, p. 24). Here, “Indexicality refers to semiotic links between linguistic forms and social meanings.” (Trent, 2012, p. 108) Indexing people happens in different ways. On the one hand, “grammatical units like nouns and verbs, phrases and clauses, are used to create patterns which signal or “index” characteristic whos-doing-whats-within-Discourses” (Gee, 2011, p. 50). On the other, the process of indexicality comes as “evaluative statements” or “overt mention of identity categories and labels within conversation as well as less direct means of instantiating identities through presuppositions and implicatures, the assumed values that can be embedded within texts.” (Trent, 2012, p. 108)

Identifying indices of indexicality in a positioning theory analysis brings clarity to the understanding of positions taken up or rejected by speakers within that speech act. Indexicality was used in this study analysis to make sense of study participants’ use of “grammatical units” to “attribute situated identities and specific activities” to various actors in the discourses (Gee, 2011, p. 50). The specific analytical approach here consisted in looking for categorisations and attributes evoked explicitly or implicitly from the data in an effort to understand the positions taken up or assigned to student-teachers.
3.2.4 Rights and Duties

The ability to gain or lose rights is crucial to negotiating positions and identities in positioning theory. Thus, rights and duties are one of the most important concepts of positioning theory. The rights and duties of individuals depend on their positions, which confer their privileges and obligations to the position holder. Put simply, “My rights are what you (or they) must do for me” while “My duties are what I must do for you (or them)” (Harré, 2012, p. 197). Through the process of positioning, “people assign certain positions to themselves and others, and along with each position comes a set of rights, duties and/or obligations” (Kayi-Aydar & Miller, 2018, p. 81). Thus, acts of positioning are tacitly or explicitly about claims to have rights and duties acknowledged, rejected, deleted or denied.

Rights and duties are interconnected in such a way that “our moral universe is built around a general presumption that for every duty there is a right and for every right a duty.” (Harré, 2012, p. 197) Duties imply power and rights invoke vulnerabilities. Therefore, it is possible to infer power relations from the rights and duties individuals have or claim in an episode. Because rights and duties determine who can or cannot do (or say) something, rights and duties are unequally distributed in social episodes (Harré, 2012, p. 193). People can gain or lose rights and duties in a social episode because rights and duties are “distributed among people in changing patterns as they engage in performing particular kinds of actions.” (Harré et al., 2009) Therefore, as people gain or lose positions, they also gain or lose rights and duties they convey.

Despite the existing link between positions and the rights and duties they promise, they do not have the same characteristics. “Positions are ephemeral but the duties they invoke must have some trans-situational standing.” (Harré et al., 2009) For example, the rights and duties of a “good teacher” in a school environment may not change but the person positioned as a “good teacher” may lose such positioning in the course of a conversation. It is noteworthy that some unchallenged rights and duties may endure long enough to “crystallise into long-term requirements of role”, hence reinforcing the perception that positioning acts and roles lie “along a spectrum” with the former being the birthplace of the latter (Moghaddam, Harré, & Lee, 2008, p. 9)
For this study, the focus was on the rights and duties teachers (expected to) gain or lose as they engage with ICTs a result of their positioning in relation to ICT usage. Of particular interest were rights and duties resulting from what Harré has described as "epistemic positioning" which focuses on understanding “how rights to know something are distributed and contested, how duties to remedy ignorance are imposed, and so on.” (Harré, 2012, p. 203) The right to know and the duty to remedy ignorance apply to the acquisition of knowledge and practical skills in using ICTs by preservice English language teachers. The student-teachers in this study are expected, by policy pronouncements, to use ICTs in their teaching once they become teachers. Therefore, the observation that “people are praised and blamed for what they believe, know and don't know, forget, and are ignorant of” (Harré, 2012, p. 203) applies to the teachers' technology know-how in the sense that “one cannot be positioned as having a duty to disclose knowledge one does not have” (Harré, 2012, p. 205).

3.2.5 Illocutionary or social force

The concept of illocutionary force was borrowed from the philosophical work of Austin (1962) and is used in positioning theory “to describe the social significance of a speech, gesture or social action” (Moghaddam et al., 2008, p. 10). Austin (1962) suggests that “the performance of an 'illocutionary' act’ is to be understood as “performance of an act in saying something as opposed to performance of an act of saying something” (Austin, 1962, p. 99). This is why any speech activity needs locating in time and space to understand the social acts it is used to perform (Moghaddam et al., 2008, p. 11).

According to Slocum-Bradley, “the same phrase or symbol can be used to accomplish different tasks, and the effective illocutionary force will depend upon the narrative context, or storyline, in which the interlocutors see themselves to be embedded.” (Slocum-Bradley, 2013, p. 106). An example here would be how a teacher interprets an ICT policy statement on using laptops in the classroom. If the reader takes it to be a “guideline” rather than a “directive” possibly because of a lack of training or resources in their context, the social force of such document changes from assigning mandatory duties to simply highlighting what can be done and positions to be taken up.

There is a strong connection between positions and illocutionary forces of utterances. In fact, Davies and Harré (1999) note “a productive interrelationship between 'position' and
'illocutionary force’” that determine what meaning each act has depending on the positions of the actors involved (p. 34). Social (illocutionary) forces of people’s words feed onto culturally available stereotypes held but individually understood by actors about those in different positions (B. Davies & Harré, 1990, p. 50).

The identification of illocutionary forces aimed at providing clarity to the highlights and duties as well as the positions participants claimed or assigned to others. This end was achieved through careful attention to the use of linguistic aspects, namely the word choices of the speaker, the linguistic context of the words for which the illocutionary force is being considered, the storyline in which they appear and my own awareness and understanding of the speaker’s utterances within the professional, social and policy context whence they draw their experiences.

3.2.6 Reflexive vs Interactive Positioning

In positioning discourse, people may say things to position others or to position themselves (Kayi-Aydar, 2019, p. 11). In the latter case, the person engages in reflexive positioning (i.e. self-positioning) while in the former, the person partakes in other-positioning, an act that also positions them, hence resulting in what is known as interactive positioning. Given the nature of conversational discourse and the way language is interpreted, interactive and reflexive positioning occur simultaneously in the same stretch of language. Thus, the positioning process is ‘relational’ because every time someone positions another, they are at the same time positioning themselves and vice-versa (Harré & Moghaddam, 2003; J.-I. Kim, 2017).

A person reflexively positioning him/herself engages in the telling of “fragments of one’s personal stories” from which “various discursive positions emerge and are made available for participants to 'take up' in the storylines” (Moghaddam, 1999, p. 76). By so doing, the speaker combines their moral and personal attributes to position themselves and make their speech acts intelligible to oneself first but also to the other (Moghaddam, 1999; van Langenhove & Harré, 1999). For example, a person may use their successful completion of a teacher-training course (personal story) to justify their self-positioning as a “competent teacher”. This reflexive positioning is not only intended to claim a position but also to make sense of whatever positions they are (or do not want to be) in. Participants such as student-teachers may intentionally or unintentionally engage in reflexive position (Moghaddam, 1999).
An analysis of reflexive and interactive positioning can reveal how people take up, delete, withdraw, or assign rights and duties to the self or others because every position “taken up or accepted” brings with it new “rights and responsibilities” (Harré et al., 2009; Sosa & Gomez, 2012). Claiming, rejecting or deleting a position (and all the rights and duties that it entails) also means the actor is at the same time claiming to have the authority and power to do so. It is only through the recognition of each other’s power that interlocutors’ relative positions are able to “allow, limit, or deny others’ identities and rights” (Sosa & Gomez, 2012, p. 593). Although “any positioning act can be challenged” (Harré et al., 2009), a successful attempt to reposition and to be repositioned in a “particular” or “more desirable way” (Sabat, 2003, p. 85) if acted upon implies a tacit acknowledgement of the actor’s power to challenge and assign positions by other interlocutors (Harré et al., 2009).

In addition to gaining or losing power through interactive positioning, Sabat (2003, p.89) explains that “some forms of positioning can be ‘malignant,’ that is to say dangerous, insofar as they can have negative effects” on how a person is seen and or treated, and eventually how that person sees herself/himself. Although Sabat (2003) is clearly speaking from a medical perspective as his study was based on patients with Alzheimer’s in care, it is not without parallels in the technology training of preservice language teachers. For example, if teacher educators position student-teachers as technology (il)literate, it affects both the support the student-teachers get in developing (further) ICT skills and how they reflexively position themselves regarding their ability to use educational technologies in their contexts, which may have an incidence on their agency in training to become educational technology users. The key questions regarding the reflexive and interactive positioning of student-teachers in this study is to understand what positions they assign to themselves and other actors (e.g. students, teacher educators or teachers) they interact with in the school system and how these positions lead to negotiating digital teacher identities.

3.2.7 Indirect or presumptive positioning

Indirect positioning occurs when an actor attempts to “establish and occupy the moral high ground” by assigning ‘mental’, ‘characterological’, or ‘moral’ traits to others in order to position them “favourably or unfavourably” in relation to the person’s or group’s interests (Harré & Moghaddam, 2003, p. 6). Presumptive positioning denies those so positioned the
right to be positioned otherwise, hence limiting their agency in seeking new positions (Harré & Moghaddam, 2003, p. 6; Kayi-Aydar & Miller, 2018, p. 87). This is why indirect (presumptive) positioning may lead to what has been referred to as “static identities.” (Kayi-Aydar & Miller, 2018, p. 89). Presumptive positioning is more common in “larger scale discourses” (Harré & Moghaddam, 2003, p. 6). In this study, I consider educational ICT policies among those larger scale discourses which present characterological traits of teachers regarding their ICT skills, knowledge, abilities, duties and rights.

3.2.8 Tacit and intentional positioning

Although individuals can deliberately position themselves or others, this positioning may also happen unintentionally. Davies and Harré (1999) and van Langenhove and Harré (1999, p. 22) have warned against assuming that positioning is always intentional. This underscores the way people use and understand language. Most often, a seemingly benign statement may reveal unconscious claims to certain rights and duties that were not deliberately intended while at the same time a listener may feel unfavourably positioned by an unsuspecting speaker. In this case, interlocutors may attempt to reposition themselves to challenge or address the misunderstood positioning claims. This is called a second order positioning which comes as a response to an initial positioning or “first order positioning.” (Kayi-Aydar, 2019)

Unlike first-order positioning, ‘second-order positioning’ “is almost always explicit, as it is accomplished in response to the first-order positioning.” (Kayi-Aydar, 2019, p. 161) Intentional positioning allows actors to present themselves and others as desired or imagined in a particular place and time. Thus, intentional positioning is an exercise of agency (Harré & van Langenhove, 1999; Kayi-Aydar, 2019) that allows agentive individuals to “accomplish specific goals” (Kayi-Aydar, 2019, p. 6) and requires individuals to deliberately decide on what kind of positions to claim or to assign others as a response to an initial positioning. Intentional positioning is achieved by “using descriptive language to describe one’s actions and points of view, or referring to autobiographical events.” (Kayi-Aydar, 2019, p. 6). It is through “rhetorical descriptions” used in intentional positioning that “the self is ‘transformed’ into a person.”(Harré & van Langenhove, 1999, p. 70)

This study encouraged participating student-teachers to (re)tell their technology experiences in schools, a move that elicited intentional self-positioning through the telling of
autobiographical stories. In these life-stories, student-teachers shared ICT-related autobiographical information and intentionally positioned themselves and other actors (their students, teachers and teacher educators, and colleagues) that they included in their life-stories. The analysis therefore sought to identify positions participants claimed tacitly or explicitly through the retelling of their ICT-related experiences.

3.3 The Positioning Triangle as an analytical framework

Positioning theory rests on three vertices of the “positioning triangle”, namely positions, storylines and “act interpretations” also known as “social forces of discursive acts” (Harré, 2012; Harré et al., 2009; Kayi-Aydar & Miller, 2018; Slocum-Bradley, 2010). The positioning triangle (or ‘triad’) is generally considered as “an analytical framework” in which the three constitutive elements mutually influence each other and collectively determine the meaning of social actions (Slocum-Bradley, 2010, p. 88; Van Langenhove, 2017, p. 9). A person’s position is connected to what anyone in that position can be “seen” or “heard” to perform and this is also linked to the narrative or storylines people in such positions live out (Harré & Moghaddam, 2003, p. 8). For example, in a context like Rwanda where ICTs are expected to enhance student’s learning (storyline), a competent teacher (position) would be expected to use ICTs in a recognisable learning enhancing way in accordance with what technologically enhanced learning means in this context (act interpretation). Hence, when identity construction is conceptualised as a process of “meaning-making” elements of the positioning triangle, i.e. “narrative (or storylines), moral commitments (or positions), and discursive acts” are its constituents (Slocum-Bradley, 2013, p. 104).

Allen and Wiles (2013, p. 180) posit that all three elements of the positioning framework can be examined from a rights and duties perspective. They explain that “positions have associated rights and responsibilities, speech acts express those rights and duties, and storylines can be located within different moral orders in terms of what rights and duties are conferred.” (Allen & Wiles, 2013, p. 180) Therefore, changing “the distribution of rights and duties” leads to a “transformation” of pre-existing storylines that make positions socially and contextually determinate (Harré, 2012, p. 196).

Methodologically, Harré and Moghaddam (2003, p. 9) suggest that any aspect of the positioning triangle could be the starting point for an analysis of positioning: “The “positioning
“storyline” can be entered empirically at any of the vertices, “position,” “speech act,” or “story line.” They nevertheless recommend “entering at “story line”’ as the ‘first step’ whereby a “storyline is proposed as working hypothesis about the principles or conversations that are being followed in the unfolding of the episode that is being studied.” (Harré & Moghaddam, 2003, p. 9)

My analysis followed this recommendation and started by identifying and understanding the storylines of ICT use for learning purposes at the national, institutional and local levels. Since storylines draw from a “loose cluster of narrative conventions” and “tend to follow already established patterns of development” (Harré & Moghaddam, 2003, p. 9), the identification of such storylines in this study helped understand the positions and rights and duties available for student-teachers regarding the use of ICTs in their language classrooms. Thus, the identification of storylines was not an end in itself but rather a means to identify student-teachers’ positioning and digital teacher identity negotiation. I sought to understand how the different elements of the triangle as conceptualised in this study interact when viewed in connection with ICT use in Rwanda (see Figure 1 below).

Figure 1. Operationalising the Positioning Triangle for digital teacher identity in Rwanda
This study’s analysis also applied Slocum-Bradley’s (2010) three levels of analysis to the positioning triangle (see Appendix 2 for a detailed analytical roadmap). Slocum-Bradley (2010) argues that “there are (at least) three “levels” at which meaning can be (simultaneously) generated and analyzed.” (Slocum-Bradley, 2010, p. 92) The first level concerns “what the narrator is talking about, or what might be called the content of the narrator's discourse” (Slocum-Bradley, 2010, p. 92). Here, “content” means the “persons”, and “personified concepts” for which the narrator constructs an “identity”. The second level of analysis “concerns what is “going on” at the level of the narrator and his or her (implied) interlocutor or audience, including what identities, right and duties are attributed to them.” At this level, “identities” “include two components: a definition of “who” the actor is, as well as characteristics attributed to the actor.” (Slocum-Bradley, 2010, p. 95) The self-identification of participants as technologically skilled or poorly trained as observed in this study was analysed at this level.

Slocum-Bradley’s third level of analysis posits that “there may be meanings constructed that are relevant to wider societal issues or ideologies (others have referred to these as “master narratives” or “dominant discourses”” (Slocum-Bradley, 2010, p. 92). My analysis at this level brought into light socio-cultural issues that relate to and influence teachers’ ICT practices in general and student teachers’ educational technology training and usage as shown or implied in the participants’ discourses. This is where the socio-historical background discussed in Chapter 1 comes into play. Therefore, positions, storylines, rights and duties, and social forces (illocutionary forces) were analysed to ensure a holistic understanding of student-teachers’ digital teacher identity negotiation in light of the Rwandan educational context in all its complexities.

As shown in discussions throughout this chapter so far, positioning theory uses elements of discourse to understand how individuals claim and assign rights and duties. Because of this, any study using positioning theory as its analytical framework is bound to pay attention to the speakers’ discourse and how they claim positions through their discursive acts. This practice often uses insights that have been honed through different strands of discourse analysis (Kayi-Aydar 2019). Despite these similarities that positioning theory analyses have
with discourse analyses, the current study does not undertake a discourse analysis approach such as content analysis, critical discourse analysis or conversation analysis. Instead, it uses a positioning theory lens which “seeks to create a type of empirical analysis which articulates micro and macro-processes in a single explanatory whole.” (Tirado and Gálvez 2008, p. 232). This is achieved by bringing together contextual and personal attributes of the study participants to understand how they claim, negotiate and assign different rights and duties through interactions (Davies and Harré 1990, Harré and Van Langenhove 1999, Kayi-Aydar 2019).

3.4 Applications and Limitations of positioning theory

The final decision to use Positioning theory in this study came after a lengthy process of what has been referred as “flirting with data” (J.-H. Kim, 2016) using different theoretical lenses, namely Holland et al.’s (1998) Figured worlds theory and Communities of practice.

Due to its attention to the distribution of rights and duties, many researchers have preferred positioning theory to other theories to study identity in educational and other settings. For instance Kayi-Aydar (2015) used it in her study of how three preservice language teachers’ identity interacts with agency. She explains that it is because of its “tight connection to identity” that positioning theory “is viewed as a powerful tool to analyse identity in discourse.” (Kayi-Aydar, 2015, p. 95) Also with interest in language teacher identity, Pavlenko (2003) used positioning as an analytical lens to make sense of teachers’ belongingness to different linguistic and professional communities. Similarly, Sosa and Gomez (2012) applied positioning theory to explore “effective” teachers’ accounts about their vision of their students and their role in their learning, hence uncovering ways in which teachers position their students regarding their learning. Trent (2012) also studied how native English teachers in Hong Kong discursively constructed their identities through the process of positioning while Slocum-Bradley (2013) used the theory to make sense of identity construction of migrants at the US-Mexico border. This underscores the appeal of positioning theory in the exploration of identity in a range of research areas and contexts.

Nevertheless, positioning theory is not a perfect theory. For example, many of the concepts in positioning theory such as positions, moral orders, rights and duties, and storylines have been criticised for lacking clarity or not being sufficiently and distinctly theorised (Kayi-Aydar,
2019; Kayi-Aydar & Miller, 2018; Slocum-Bradley, 2010). The concept of “storyline” has been criticised as “vague” and differently interpreted in various studies (Kayi-Aydar & Miller, 2018, p. 89). Others have lamented that when it comes to using positioning theory concepts, researchers often fail to clarify “how they knew a position or a storyline when they saw it in data.” (Herbel-Eisenmann et al., 2015, pp. 191–192). Further criticisms have been about insufficient or lack of integration of power issues in positioning analyses (Kayi-Aydar, 2019, p. 162).

However, despite its weaknesses and criticisms identified in the above discussions, positioning theory is an appropriate lens for an exploration of preservice teachers’ technology user identity especially in situations such as the teaching internship. In this study, a solution to this has been to make a systematic approach to the analysis that identifies what aspects explored in the data and how they are recognised as shown in throughout this chapter and the analytical roadmap presented in Appendix 2.

On the whole, there can be more positions in any statement than easily identified, acknowledged or intended because “there are usually a plethora of explicit and implicit story lines” “at play in any moment” (Harré & Slocum, 2003, p. 130; Herbel-Eisenmann et al., 2015, p. 191). Therefore, identifying storylines, positions created within them and illocutionary forces of speech acts they embody cannot be exhaustive as even speakers themselves may not be aware of all the positions they are claiming or the perceived illocutionary forces of their speech acts. Hence, the storylines, positions and illocutionary forces proposed in this work come with the understanding that the data could contain (and most likely contains) more than what is selectively presented here to satisfy the objectives of the study.

In the next chapter, I discuss the methodological choices made in designing and conducting the study.
Chapter 4: Methodological Considerations

4.1 General Overview

This chapter explains the methodological approaches taken in designing and conducting this study of preservice language teachers’ digital teacher identities in Rwanda. Issues of methodology, paradigms and their link to the study objectives and research questions are discussed to provide the reader with an understanding of how I went about doing what this study aspired to do. First, I introduce the research problem and questions before addressing issues of paradigms. I then discuss ethical considerations for the study, the design of the study, participant recruitment, interview designs, and policy documents selection before ending with discussions of the analysis to complement analytical procedures alluded to in the discussion of Positioning Theory above.

4.2 Research problem and questions

For the last decade, investments in ICT for education in Rwanda have been significant with the goal of using the technologies to open the ‘global village’ to the youth in this landlocked country. Not only this initiative has put Rwanda among countries with the fastest growing ICT penetration, it has also given the country global recognition for its government’s ICT promotion success (Dutta, Geiger, & Lanvin, 2015).

As discussed in Chapter 1 the digitisation of the country aligns with the new mission of education is to produce a new generation of Rwandans that will turn the country into an ICT-mediated “knowledge-based economy” and a “regional technology hub” (Government of Rwanda, 2012; Wandia, 2017). This makes teachers even more critical to achieving these goals, thereby underscoring their indispensable role in Rwanda’s development ever since the Genocide in which “more than two-thirds of the teachers in primary and secondary schools were either killed or fled” (Buckland, 2005, p. 13). Accordingly, teachers’ use of technology in their classes and especially in cross-cutting subjects such as English is expected to improve the quality of education (MINEDUC, 2015). This is why it is imperative to understand identities ICT policies in Rwanda assign to teachers as these can reveal the kind of ICT uses expected of them. Thus, the first research question in this research was: (1) What ‘digital teacher identities’ do policies assign to teachers in Rwanda?
Teacher identities are not only shaping and shaped by practice (Xu, 2013), assigned identities can also lead to emotional responses that affect how teachers fulfil their duties. Given that the policies, schools, students and teacher educators position student-teachers in ways that may seem complementary or contradictory to each other, and considering the technologically under-resourced Rwandan context which makes ICT use challenging, it is important to understand how student teachers enact assigned digital teacher identities during a teaching internship. Thus, the second question was (2) How does the positioning of student-teachers by teacher educators affect their enactment of digital teacher identities during the internship?

Lastly, as shown in the literature review in Chapter 2, researchers agree that identities are negotiated within a particular context through various processes (Barkhuizen, 2016a; Beauchamp & Thomas, 2009; Beijaard, Meijer, & Verloop, 2004). This awareness suggests that aspiring teachers will negotiate their own digital teacher identities once in specific school contexts. It is therefore also important to understand how student-teachers negotiate their own digital teacher identities in their respective internship contexts, especially given that the internship is critical phase in teacher identity development (Brinton & Holten, 1989; Ortega, 2013; Ripamonti et al., 2018). Thus, the third research question was (3) How do student-teachers negotiate their digital teacher identities during their teaching internship in an under-resourced context?

4.3 Rationalizing a qualitative exploration of digital teacher identities

Every research aims at generating a certain understanding of the world, a certain version of the “truth”. This search for the “truth” presupposes a string of ontological and epistemological positions that require making “one of the critical decisions” in research which consists of locating the study to be conducted in a particular paradigm (Maxwell, 2005, p. 36). The researcher thus not only chooses a certain view of the world, s/he also admits that the “truth” sought can only be constructed under the guidance of the principles of that paradigm. In this regard, the “selection of a paradigm (or paradigms) is not entirely a matter of free choice” (Maxwell, 2005, p. 37) because it is dependent on the nature of the truth one seeks. As in this study, the research problem (and by extension the nature of the truth about it) influences the choices made throughout the design and implementation of the study.
In this study, I explored the development and negotiation of technology-using teacher identities—herein referred to as digital teacher identities (DTI)—by preservice language teachers in Rwanda. The study specifically focussed on student-teachers in an English language teacher education programme during a year-long teaching internship in Rwanda where a push for ICT adoption in schools is quasi-omnipresent. Therefore, an understanding of the DTIs and the dynamics of their development require a research approach that allows the exploration of subjective experiences. Consequently, the complexity and subjective nature of teacher identity and the goals of the study excluded certain research paradigms.

In search for such a research paradigm, qualitative and quantitative approaches were closely considered in how their respective virtues and flaws could benefit or impede the study goals. Quantitative or positivist research approaches seek to produce “objective”, quantifiable and generalizable data. This contrasts with social research which, as Usher (1996, p. 18) argues, is more concerned with “interpretation, meaning and illumination” of our social world. In general terms, “qualitative research is characteristically exploratory, fluid and flexible, data-driven and context-sensitive” (Mason, 2013, p. 31). Therefore, a qualitative researcher does not set out to test hypotheses but gets insights from collected data which can also be used to reshape the ongoing study.

The value attached to deviant individual characteristics is an important distinctive feature between qualitative and quantitative approaches. While individual differences are celebrated in qualitative research, quantitative research “overlooks the uniqueness of individuals” in the study as it capitalizes on generalizability (Creswell, 2007, p. 40). A disregard of individualities in this study would be short-sighted because “any approach that disregards or underplays the value of human history, interactions or values in an investigation on teacher identity would be prejudicial” (Kimaliro, 2015, p. 88). This is because identity “combines the intimate or personal world with the collective space of cultural forms and social relations” (Holland et al., 1998, p. 5).

Thus, given that qualitative research cares “more about understanding specific situations, individuals, groups, or moments in time that are important or revealing” (Rubin & Rubin, 2012, p. 2), this study of preservice teachers’ digital teacher identity negotiation in an under-resourced context was conceived as a qualitative study. This is because qualitative studies
afford the researcher more avenues to “understand the meanings that construct and are constructed by interactive human behaviour” (Usher, 1996, p. 18). An exploration of a digital teacher identity development falls within this social realm of an individual’s understanding of what it means to be seen and characterized as a technology-using teacher in a school in Rwanda. Since identities also shape how we behave and act, and are lived through experience (Bower & Parsons, 2016); “qualitative research is likely to be more insightful in unpacking how teacher identity is construed and constructed by all stakeholders” (Borg, 2016, p. 130).

4.4 Ethical considerations

The existence of “several ethical challenges” in qualitative studies is an undisputed observation (Suzuki et al., 2007, p. 302). Potential sources of ethical issues may include “the conceptualization of the research questions, informed consent, confidentiality, and the collaborative relationship between researcher and participants.” (Suzuki et al., 2007, p. 302) The ethical issues anticipated in this study related to confidentiality, informed consent and rapport between researcher and participants.

Thus, it is worth stating that the study followed “procedural ethics” by acquiring institutional approval and acquisition of participants’ informed consent (Guillemin & Gillam, 2004; Whiting, 2008). With regard to institutional approval, the study obtained ethical approval from the University of Manchester and from the Rwanda Ministry of Education through the National Council for Science and Technology. The latter approval required securing first an institutional affiliation with the University of Rwanda’s College of Education, and obtaining one of their senior academics to support the proposal as a “local supervisor”. In accordance with the University of Manchester’s ethical guidelines, I developed consent forms and participant information sheets (PIS) for this study’s participants (see Appendix 5 and 6. The forms clarified the study objectives, why the participants would be chosen and what information would be collected from them and how it would be processed and stored.

One of the key aspect of ethical research is to protect participants’ anonymity. In this study, in addition to using pseudonyms to refer to participants, efforts were made in the descriptions to “not include information about any individual or research site that will enable that individual or research site to be identified by others.” (Walford, 2005, p. 84). It is in this way for example that teacher educators are described in generic terms while the student-
teachers’ internship locations are only referred to as being in Kigali without mentioning their specific schools and districts as they appear on their University’s internship allocation lists.

As shown earlier, the study uses positioning theory, which made me even more conscious of my relationship with the participants and their context (Suzuki et al., 2007), especially regarding the positioning impact every choice I made would have on this relationship. This was an “ethics-in-practice” issue that I was consciously aware of throughout the study (Guillemin & Gillam, 2004). For example, an issue of concern in this study was the choice of language given that participants are native speakers of Kinyarwanda. I anticipated that participants would feel negatively positioned if given consent and PIS forms in Kinyarwanda given that education officials go on record questioning English language teachers’ competence—the category of these participants—with claims such as “those who teach English in primary and secondary schools cannot speak English themselves” (Ukwezi News, 2017). Thus, considering this in conjunction with my position as a researcher at a UK University—and the linguistic labels that this could put on me from the participants’ perspective—I decided to provide all ethics related documents and conduct interviews in English, thereby accepting that this study—and by extension myself—could not be neutral regarding teacher identity in this context (Sikes, 2006).

Lastly, another ethics-in-practice concern was my position as an insider and outsider at the same time; insider because I had graduated from the same programme, and an outsider because I was conducting research from a “foreign” University. Although I detail how this trickled down into the data in Section 10.1, suffice here to clarify steps I took to control the effect of my “double status” on the study. To address my insider status, I arranged informal discussions and meetings with officials on the programme who were not taking part in the study, including college officials and an academic who served as a “local supervisor” and the programme director. I also arranged school visits to understand the specificity of each participating student-teachers’ internship context. This allowed me to avoid making decisions based on my “aged” personal experience of the programme. On the other hand, I tried to reduce the effect of my “outsider” position by openly discussing with participants that I had previously graduated from the programme, which served as a starting point for building rapport with them.
4.5 Research Design

In conformity with Bowen’s reminder that a “qualitative researcher is expected to draw upon multiple (at least two) sources of evidence” (Bowen, 2009, p. 29), and owing to the idea that teacher identities are multiple, fluid, and multifaceted (Barkhuizen, 2016a; Beauchamp & Thomas, 2009; Olsen, 2011), this study relied on three data sources, i.e. interviews with student-teachers, teacher educators, as well as ICT in education policy documents to explore “multiple perspectives” of student-teachers’ digital identity negotiation.

The consideration of policies, teacher educators, mentors and teacher trainees to understand student-teachers’ digital teacher identity negotiation is, for this study, a move towards “embracing the idea of multiple realities” (Creswell, 2007, p. 16) expressed through the discourses of the different data sources. Creswell designates the “extensive collection of data, typically from multiple sources of information” as “the backbone of qualitative research” (Creswell, 2007, p. 43). This has thus led to the choice of in-depth interviews—multiple interviews with student-teachers—and documentation (discussed below) as methodological tools needed to answer the research questions.

The design of the study was such that the documentary sources were first identified and selected for analysis in the study before human participants were recruited and interviewed three times (for student-teachers) or once for teacher educators and mentors (see Figure 2). The rationale for this was to ensure a better understanding of the ICT policy environment in which the participants worked and its implication for their digital teacher identity development. In the design, I considered teacher educators and mentors as critical influences and knowledgeable role models for the student-teachers in their development of digital teacher identities.
As shown in Figure 2, the current study followed a predetermined process consisting of various stages that started with ethical clearance procedures, first from the University of Manchester and second from the Rwanda’s Ministry of Education. At the time of this study, it was a requirement for researchers working on Rwanda to seek ethical approval from an agency of the Ministry of Education, the National Council for Science and Technology. After ethical clearance, I started the collection of documents and screening them against the inclusion criteria (discussed below in Section 4.5.3. This preceded the recruitment of participants and the collection of interview data.

4.5.1 Study Participants

In this study, the goal was to collect data that would elucidate student-teachers’ digital teacher identity negotiation during a teaching internship. To achieve this, I recruited student-teachers doing an internship in English language teaching, but also their teacher educators and their mentors as participants. In the next sub-sections, I will discuss characteristics and the recruitment process of these participants and what data generated with them was eventually retained for analysis and reporting.
4.5.1.1 **Student-teachers**

The student teachers were trainees majoring in English on a language teacher education programme at the University of Rwanda, College of Education. They had completed all coursework and were in their final internship year, which was spent in a single school. Besides majoring in English, student-teachers also had to be doing their internship in a placement school in Kigali to be eligible for participation. My choice of Kigali was for convenience and accessibility reasons. I needed to visit and familiarise with participants on a regular basis in the early days of the internship (the school visit period) while also being able to travel to the teacher education college in the Eastern province of the country to meet with participating teacher educators. Kigali was convenient for both purposes.

To recruit student-teachers for the study, first, I requested and obtained a list of student-teachers and their placement schools from the college of Education’s office in charge of the internship. The list indicated subjects that student-teachers were teaching during the internship, their placement school and the district in which it is located. Using the list, I then selected eligible student-teachers and established an initial contact by visiting their placement schools. When the school leadership allowed me to meet the student-teacher there, I would arrange an introductory meeting and present to them the idea of becoming participants of the study verbally. In some cases, schools did not allow me to meet the interns. In most cases, interns would refuse to participate in the study. Overall, seven student-teachers accepted to participate and were given consent forms and participant information sheet (see Appendixes 5 and 6) to review. Five of them eventually participated in all three rounds of data collection. In this study, focus is given on two of them—Dominic and Denyse (pseudonyms)—as detailed in Section 4.5.1.4 where later changes to participant numbers are explained.

Upon signing consent forms (see Appendix 6, I began visiting them once a week to understand better ICT practices in their working environment and to develop rapport before I could start interviewing them about their digital teacher identity. This lasted the whole first month of their teaching internship, which they were also supposed to spend observing their mentors without teaching. My school visits were informed by the argument that researchers “must first explore the characteristics of the learning environments of teachers” (Meijer, 2017, p.
222) and the observation that “[t]he longer researchers stay in the "field" or get to know the participants, the more they ‘know what they know’ from first-hand information” (Creswell, 2007, p. 18). The visits involved having informal discussions with the student-teachers outside their classes, with other schoolteachers, school officials, and visiting computer labs where they existed. These visits allowed me to understand the context but also build trust with the student-teachers, an important achievement in this context where participants may be at first reluctant to express themselves freely with someone they don’t trust (Baxter, 2014).

4.5.1.2 Teacher educators

I recruited teacher educators to take part in the study based on staff information available on the College of Education website and that obtained through the programme director. The key selection criteria for teacher educators were (1) that they had taught at least one course unit to students on the language teacher education, (2) were willing to participate in the study, and (3) were available during the time of the data collection. Despite the lower rates of female academic staff in Rwanda (MINEDUC, 2016a), I sought to balance participants across genders with three male teacher educators and two female.

All the teacher educators I approached showed interest in participating in the study. Of these, I selected five whom I gave consent and PIS forms and arranged an interview with them at the time and place of their choosing. Two participants (James and Gerard) taught specialised courses in language teacher education. They both hold PhD degrees in their fields. Another two (Maximilian and Irene), who hold master’s degrees, taught English for academic purposes on the programme. The fifth teacher educator (Bernadette) taught general education courses. All participants (names are pseudonyms) had experience in language teaching. They had all taken part in on-site visits to student-teachers during the internship in previous years and had been slated to supervise student-teachers during the internship for the 2019 cohort. However, at the time of the interviews (February 2019), none of them had yet visited any placement schools.

Teacher educators’ interview data helped to understand the translation of the policy expectations into the training of teachers regarding educational technology practices within institutional contexts. This enabled me to understand digital teacher identities assigned to student-teachers during their teacher training and internship.
Since every learning experience leads to the formation or transformation of an identity (B. C. Rubin, 2007), the teaching internship is a fertile ground for student-teachers to develop and negotiate identities at a time when their professional identities are yet to affirm themselves (Beauchamp & Thomas, 2009; Danielewicz, 2001). During the internship, mentors have the potential to influence the professional development of teachers as their role models (S. Mann & Tang, 2012). Their participation in the study was therefore anticipated to shed light on how student-teachers negotiated their digital teacher identities as a result of the interaction and collaboration with experienced mentors.

For mentors to participate, they had to be identified to me by school officials as the mentor working with student-teachers and be willing to take part in the study. I would then approach these identified “mentors” to participate in the study. In the study design, I relied on information from the College of Education documents that each student-teacher would be working with an experienced “mentor” who would “direct the day to day activities of the intern” and “observe their teaching and give them feedback, coaching and follow-up” (KIE, 2012, p. 11). As I explain in the next section, this was eventually not the case and was a reason for excluding mentor interview data from the data set.

Although the initial design of the study included student-teachers, teacher educators, mentors and policy documents as data sources, the findings reported here do not include data from mentors. The study only reports on two student-teachers (Denyse and Dominic), five teacher educators and 10 policy documents (see Figure 3 below). The exclusion of mentors from the data set and the reduced number of analysed student-teacher cases from five to two is due to two reasons. First, after interviews with “mentors”, and throughout interviews with student-teachers, I realised that teachers identified and eventually recruited as “mentors” for preservice teachers were, in most cases, individuals in the school charged with signing university reports but were not professionally mentoring the student-teachers in their internship despite the labelling. These “mentors” were often officials within the school administration who also had teaching duties. For instance, Dominic and Denyse had individuals identified as their “mentors” even though these were not involved in any direct
“mentoring” of the student-teachers. This led to a realisation that the student-teacher and mentor relationship anticipated as critical aspect of the digital teacher identity development of the former did not exist. As a result, this data was excluded from the analysis.

Secondly, five student-teachers fully participated in the study but the data reported here is only for two—Dominic and Denyse—who were considered to “embody and represent” all the meaningful experiences needed to provide insights into the topic under study (Crouch & McKenzie, 2006). Given the richness of the data collected in the three interviews with each of the participants, it became evident that prioritising depth over number would allow a better understanding of student-teachers’ digital teacher identity development, especially since even “just one ‘case’ can lead to new insights” (Crouch & McKenzie, 2006, p. 493).

4.5.2 Semi-structured interviews

In this study, I used semi-structured interviews (see Appendix 7). Apart from their medium (either face-to-face or by telephone or VOIP—Voice over the Internet), interviews differ based on their “degree of structure” (Wilson, 1996, p. 96). Interviews may be highly structured where all the questions and their wording are predetermined and are asked as such without any modification, adaptation or adjustment form the researcher (Wilson, 1996). For this type of interviews, there are no “opportunities for the interview to move towards an agenda of
interest which is determined by the respondent rather than the researcher, whether wholly or partly” (Wilson, 1996, p. 96). The limitation of this type of interview is that it lacks the flexibility that is characteristic of qualitative research and therefore lends itself to quantitative methods (Carruthers, 1990).

Conversely, the naturalistic or unstructured interviews which are conducted like “natural conversations between two people” “and more resembles a conversation between equal participants” stands at the other end of the spectrum (Wilson, 1996, pp. 94, 96). This type of interview is often characterised as ‘in-depth interview’ through which researchers explore in detail the experiences, motives, opinions of others and learn to see the world from perspectives other than their own” (H. J. Rubin & Rubin, 2012, p. 3). However, the lack of structure in this kind of interviews could be challenging.

On the other hand, semi-structured interviews allow the researcher to draw from the strengths of both structured and unstructured interviews. Semi-structured warrant flexibility and provide opportunities for probing and follow-up on issues of interest raised during the interview, some of which may be “totally unforeseen” (Adams, 2015). Because of this flexibility, semi-structured interviews are considered time-consuming (including during transcription), and limiting in terms of the number of participants that can be interviewed (Adams, 2015; Carruthers, 1990; Whiting, 2008). However, these shortcomings did not prevent me from using semi-structured interviews because the study intended to have limited number of participants and sufficient time had been allocated to the collection and transcription of the data.

According to Mason (2013, p. 110), the situatedness of knowledge underpins qualitative research and “the job of the interview is to ensure that the relevant contexts are brought into focus so that situated knowledge can be produced.” This explains why most teacher identity studies are qualitative with interviews as one of the methods. This study also subscribes to this understanding. The goal was to use semi-structured interviews with the different participants to bring into focus student-teachers’ digital teacher identities negotiation. The flexibility gained through semi-structured interviewing aimed at producing what has been called “conversations with a purpose”(Burgess, 1984, p. 84) rather than random or rigid exchanges. This entailed considering participants as “active makers of meaning” rather than
“passive vessels of answers” (Holstein & Gubrium, 1995). The plan to spend a month visiting participants in their work environment was equally meant to reinforce connection and mitigate possible anxieties.

Thus, to engage participants accordingly, I developed an interview guide, i.e. “the outline of planned topics, and questions to be addressed, arrayed in their tentative order.”(Adams, 2015, p. 496) The interview data reported here was obtained using three different interview guides (see Appendix 7), each with its own purpose and/or audience: background interview, internship experience interview for student-teachers, and teacher educators’ interview. All interviews were semi-structured and lasted between 45-60 minutes.

Student-teachers’ background interview followed a reflective design, using the Tree of Life reflective pattern (Farrell, 2016b, 2016a). The Tree of Life consists of “biographical sketches” “which map out our personal history from our early experiences growing up to the present, either as a teacher or as a teacher-in-training” (Farrell, 2016a, p. 27). The Tree of Life is rooted in reflective practice. Farrell maintains that “By reflecting on our chronological story, we can gain some insight into who we are as teachers, which is the essential foundation of our philosophy of practice.” (Farrell, 2016a, p. 28). My use of interviews informed by the Tree of Life to comprehend student-teachers’ identity is based on the understanding that a teacher identity includes a teacher’s knowledge of the self as a teaching professional. As Elbaz argued, “teachers’ knowledge in its own terms is ordered by story and can best be understood in this way” (Elbaz, 1991, p. 3). The role of the Tree of Life approach was, therefore, to resurface student-teachers’ experiences with ICTs and how these influenced their current and future self-perceptions as technology-using teachers while providing foundations for negotiating new digital teacher identities and positions.

The Internship Experience Interview, also developed for student-teachers was designed using concepts of identity, characteristics of language teacher identity (Barkhuizen, 2016a; Beauchamp & Thomas, 2009), and factors within a “teaching ecosystem” that “have some effect on how and to what degree teachers use technology” such as ICT access (Zhao & Frank, 2003, p. 816). This was used in the middle and end of the internship to explore student-teachers’ identity negotiation.
The Teacher Educators Interview was largely based on Foulger, Graziano, Schmidt-Crawford, & Slykhuis (2017) and Uerz et al. (2018) “teacher educators' competences” to “foster both student teachers' competences in using technology as a tool for teaching” (Uerz et al., 2018). It sought to engage teacher educators to share their experiences supporting student-teachers access and exposure to ICTs as well as ways in which they prepared student-teachers to become ICT users.

I conducted the first and third phase of interviews face-to-face. I agreed interview times and venues with participants, choosing from options they proposed. Interviews took place in participants’ offices or in unused classrooms or cafés near their workplace. The second phase of the interviews were conducted using telephone. This was because of the difficulty to be in the same location as the participants who were in Rwanda while I was in Manchester, England. All interviews were recorded using a digital recorder, which according to Whiting (2008, p.36) lightens the atmosphere by freeing the interviewer from “the distraction of note taking.” I transcribed each recording verbatim myself to establish “closeness” to the transcript and facilitate my analysis of the data (Halcomb & Davidson, 2006). I then shared the transcripts with participants. Except one participant who asked to change his answer to one question, participants either accepted the transcript as accurate or did not feedback on it.

4.5.2.1 Linguistic considerations for interview data collection

In this study, all interviews were conducted exclusively in English. This was a research decision based on the awareness that

a) all educational policies analysed in this study had only been published in English despite the country having four official languages, an indication of the positioning of English in the country;

b) all participants in the study were English language teachers and teacher educators and therefore properly trained to express themselves fully and confidently in English;

c) Rwandan teachers’ ability to use English is constantly depicted in the country as the cause for the poor quality of education and therefore proposing interviews in Kinyarwanda could have been perceived as reinforcing such unfavourable positioning of teachers. This was an especially important awareness since the study was about
participants’ digital teacher identity and raised issues relating to their competence as teachers, which required ensuring that the participants do not see the researcher as questioning their competence in the subject of their specialisation.

Considering that language use is both a social and political issue in Rwanda, the choice of English—over participants’ native Kinyarwanda—as the medium of this study could also be seen both as an implicit alignment with the political will to front English, while at the same time appearing as an attempt to side with teachers whose supposed lack of skills in English is perceived as the culprit for the poor quality of education in Rwanda. In fact, my language choice aimed at making participants feel positively viewed as professionals. I deemed this choice of language an important element in building trust, rapport and sympathy with the participants (Gallego-Balsà, 2020; Prior, 2018). There have been suggestions that some research participants may prefer to be interviewed in their second language (in this study’s case, English) because they “are professionals working in that language” (Cortazzi, Pilcher, & Jin, 2011, p. 510). This was also anticipated in this study because the use of the mother tongue could have been laden with negative connotations and positioning of the participants who are also language teachers and teacher educators, given the importance put on the use of English in Rwanda’s education system.

I considered whether the choice of English in this study might mean that there were compromises to be made. While English may have enabled participants to feel appreciated as competent English language speakers (at least by the researcher), it may have also made them to feel more distanced from their socio-cultural reality and therefore become “more critical or evaluative” than they could have been in their mother tongue (Cortazzi et al., 2011, p. 507). Also, because “concepts and vocabulary that exist in one culture and language may not translate directly to another” (Dhillon & Thomas, 2018, p. 447), the use of English may have made participants in this study—who are all native speakers of Kinyarwanda—unable to discuss certain issues with the ease and fluidity that they could afford only in their mother tongue. However, the specific focus of this study also meant there were particular affordances to English being the medium of interviewing. ICT-related concepts are relatively new in the Rwandan language and culture, and the use of English also facilitated discussing and referring to ICTs for both participants and the researcher.
4.5.3 Policy and Programme Documents

There is a growing acknowledgement that documents are an important source of data (Finnegan, 1996). Specifically, documents are crucial to any exploration of teacher identity in Rwanda because they highlight attempts to shape teacher identity, especially after the 1994 Genocide that destroyed Rwanda’s education system. These policy documents are therefore produced to reflect the circumstances, constraints and socio-historical conditions of those who produce them but also the conditions and people they try to create for those who are to benefit from them (Finnegan, 1996). Documents were used to identify expectations from the teachers as well as the environment in which they are expected to enact their digital teacher identities (Bowen, 2009).

The documents selected for this study came from different sources and had varying scopes of validity. They include the following categories:

a. *National policy documents*: these were documents produced by the Government, the Ministry of Education or its agencies mainly as strategic level documents aimed at providing guidance on the use of ICTs on a national scale (Byungura, Hansson, Masengesho, & Karunaratne, 2016). Criteria for documents to be selected for this category was their relevance both for the education sector and validity at national level. These supplemented the data collected through interviews and other documents (Bowen, 2009). More importantly, they provided an understanding of the assigned digital teacher identities and how student teacher’s understanding of their digital teacher identity development fit within national discourses and expectations.

b. *Institutional documents*: institutional documents were documents at the operational level produced with the aim of “assisting educational institutions to realize the national vision stipulated in strategic policies.” (Byungura et al., 2016, p. 46) The teacher education programmes received from the University of Rwanda’s College of education fell into this category. Institutional documents provided “background information” on student-teachers’ training experiences as well as “conditions that impinge” on their teacher identity development and negotiation during their teacher education (Bowen, 2009, p. 29).
According to Finnegan (1996), there exists a “huge numbers” of written documents available for document analysis researchers. As a result of this diversity, “some selectivity is necessary” to determine those which are valuable to the study and those that are irrelevant (Finnegan, 1996, p. 147). Accordingly, I drew from Bowen (2009) and Finnegan (1996) to make the following document selection criteria for this study:

- **Credible Authorship:** To ensure that documents selected were genuine, the first step in the document selection process included verifying documents’ authorship, especially since most of the documents used in this study were publicly available on the Internet. This was mainly done by crosschecking whether the document was either referenced in other policy documents produced before or after it; and checking whether it was available or listed on the Ministry of Education or one of its agencies’ website.

- **Currency:** Current documents were documents still in use in the Rwandan education system at the time of selection in 2018. In case of documents existing in different versions, such as policies, only the latest version was selected for analysis, unless it is unavailable to the study.

- **Relevance:** Relevant documents are those designed to guide, influence, assess or reflect the teaching practice and the professional training and development of teachers in Rwanda. They include policies (education, ICT, teacher development), national curricula, or manuals.

- **Accessibility:** Finnegan (1996) considers accessibility as a practical constraint that may affect the selection of documents for analysis. Accessible documents were those available to the researcher electronically or in print during the study period. All policy documents analysed were publicly available on the Ministry of Education (or its partners’) website. Institutional documents—programme descriptions—were obtained (with some delays) from the relevant authorities in the College of Education.

To apply the above selection criteria, I pre-selected 27 policy documents available on the ministry of education website (18), the Rwanda Education Board website (7) in November 2018. Some of these were duplicates of each other. Others cross-referenced other policy documents hosted on government (1) and UNESCO (1) websites. A survey of these documents following the selection process based on the above criteria led to the identification of 9 documents to which I added the language teacher education programme-related documents
(Programme Specifications, Module Descriptions, and Programme structure) under the collective name of *Programme descriptions* (see Appendix 1 for their descriptive list).

![Diagram of documentary sources selection]

*Figure 4: Documentary sources selection*

After this selection process, 10 documents that met all these criteria were selected for analysis.

4.6 Data analysis: applying the positioning triangle

Given the exploratory nature of this study, data analysis started with the collection of documents (though more informally) and continued till the final stages of report writing (Boulton & Hammersley, 1996). Therefore, while in the next sections I describe an apparently linear analytical process—for clarity purposes—the analysis happened in “an iterative fashion” as later steps of the analysis often prompted to re-examine prior analytical efforts (Guest, MacQueen, & Namey, 2012, p. 22).

4.6.1 Data preparation

It is important to start this section by clarifying that not all data collected went through a data preparation and analysis phases. As suggest in sub-section 4.5.1.4 above, due to a range of factors, the study was scaled back and eventually all the data collected was not analysed. Thus the findings reported here are based on some of the data. **Table 1** below shows what data was collected at each stage of the research and what was eventually analysed and reported herein. The table also has notes on where each type of data is reported on in the thesis as well as why parts of the data sets were not retained for analysis.
Table 2. Achieved Data sets at different stages of the research process

<table>
<thead>
<tr>
<th>Data Collection Timeline</th>
<th>Data Types and Sources</th>
<th>Policy Documents</th>
<th>Teacher Educator Interviews</th>
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<tbody>
<tr>
<td>Phase Two (Data Collected)</td>
<td>April-May 2019</td>
<td>Education Sector Policy</td>
<td>Interview with Gerard</td>
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<td>Phase three (Data Collected)</td>
<td>July-August 2019</td>
<td>Education Sector Strategic Plan 2013/14 – 2017/18</td>
<td>Interview with Maximilian</td>
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<td>Total data from the three phases</td>
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<td>Guidelines for Teaching Time Table on the usage of ICTs device in schools</td>
<td>Interview with Irene</td>
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<td>Data Preparation Analysis Phase (Data Retained for analysis)</td>
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<td>Higher education policy</td>
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<td>ICT Essentials For Teachers—Based on the UNESCO ICT Competency Framework for Teachers</td>
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<td>SMART Rwanda Master Plan 2015 ~ 2020</td>
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<td>Teacher development and management policy in Rwanda</td>
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<td>Programme Descriptions</td>
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Prior to the actual analysis, all data presented in the “Data Preparation Analysis Phase (Data Retained for analysis)” column of the above table went through a “data preparation” phase in adherence to the warning that data “must be prepared before analysis can begin” (Boulton & Hammersley, 1996, p. 286). Because of the different types of data used in this study, data preparation happened in two distinct ways. Preparatory steps for documents included putting them into digital format compatible with NVivo 12. For the interview data, the preparation consisted of multiple times of listening to the same recording, “verbatim” transcription of recorded interviews, sharing transcripts with the interviewees for accuracy verification and anonymization of the data by removing personally identifiable information. In preparation for the use of the Positioning Triangle, I developed an analytical roadmap (see Appendix 2) to guide me into the use of positioning theory and ensure I followed its principles in the coding of the data.

Once this phase was complete for each data type, I started applying the positioning triangle to the data. This analysis used the Positioning Triangle and happened at different levels, starting with the identification of storylines. Data coded at particular storylines was then further coded for positions and rights and duties, and the illocutionary forces of speech acts in which they were expressed. The identification of positions, rights, duties, and storylines followed the Positioning Triangle principles and the detailed explanation of how each positioning theory concept would be applied to this study as described in Sections 3.2 and 3.3.

4.6.2 Analysing storylines

To identify student-teachers’ digital teacher identities, I started first by finding storylines. In the analysis, storylines were identified through statements relating to what the participants considered to be (1) the accepted relevance of ICT in their teaching and learning, (2) true about ICT training in their contexts, (3) the perceived prevalent ways of using ICTs in their educational contexts, and (4) the circumstances affecting the use of ICTs. Based on this, my analysis identified different storylines which, using a synoptic view afforded by NVIVO (see Figure 5) I further analysed data coded at each storyline to identify positions claimed by or assigned to student-teachers. Figure 6 gives an example of data coded with different
storylines, positions and rights and duties coded across three different interviews with one of the participants.

Figure 5. A view of coded data in NVIVO for one participant: Denyse
Denise (pseudonym) - the materials that I used... because I didn't have to teach a chapter called using audio materials [hmmmm] in its teaching plan. So, I could use thoseuhm theuhm... the internet so that I can get some speeches, and by using the internet, there is a head of using a computer so that that speech that I take from the internet, I could connect to my machine or to my laptop and a speaker so that all the learners could listen. So, I use the laptop, internet, speaker... that's what I use.

Interviewer: Ah, okay. And your experience using them has improved how you use them, is that true?

Denise (pseudonym): Yes.

Interviewer: What specifically were you unable to do before that you can do now?

Denise (pseudonym): What I was not able to do... it is I could find the speech, but to manage it or to download that thing I can get it to my laptop. It was difficult, but now, I know how to do it. And I know how to connect that speech to another device.

Interviewer: So, basically now you can connect the different, maybe the speakers to your laptop to play the recording which you were not used to doing before?

Denise (pseudonym): Yes.

Interviewer: Uhm, you said that if you could continue your internship or if you could continue teaching your subject, you would continue using... it would help you to continue learning about ICTs as you use them...

Denise (pseudonym): Yes.

Interviewer: What do you think you need to continue learning about if you were to continue teaching your subject?

Denise (pseudonym): I want to continue to look about is uh, the correct use of them in the way I could use them correctly so that many learners could listen because it was my first time using them in teaching. So, there was challenges. Maybe the students didn't get the voice umm the way I wanted them to listen to it. So, I could... I wanted to improve it. I wanted to improve it in correctly using in... knowing many devices that can help to achieve our objective.

Interviewer: So, you're saying a correct way of using them.

Denise (pseudonym): Yes.

Interviewer: Ah okay. What do you mean by a correct way of using ICTs?

Denise (pseudonym): The correct way. It is every learner could listen to what I want him to. To teach them the message. Because maybe I could connect to one speaker, the ones who are behind, they don't understand. So, I want everyone to have access.

Interviewer: So, you need everyone to be able to hear or to listen to what you are teaching?

Denise (pseudonym): Yes.

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Figure 6. Example of interview extract coded at storylines in NVIVO
4.6.3 Analysing positions, rights and duties

As discussed in Section 3.2.2, positions were identified by following various ways positioning happens, which, as highlighted by Wilkinson and Kitzinger (2003), include “(a) naming or indexing a category; (b) invoking categorical membership; and invoking attributes.” (Wilkinson & Kitzinger, 2003, p. 174). Here for instance, teacher educator’s statements referring to student-teachers as “the young generation” were analysed as creating a category” which implies positioning student-teachers based on their age. Similarly, student-teachers’ claims to have been “the best” in using ICTs were seen as an invocation of attributes as an ICT-using teacher. It is important to note here the identification of positions in the analysis was tightly linked to the analysis of rights and duties as well as the illocutionary force of the statements made. This consists of examining the meaning but also the linguistic choices made. For example, in the teacher educator statement “we tell them to be wise”, the choice of pronoun (we, them) allow for an identification of whose rights are into play while the choice of verb (tell, not advise) provide an idea of the illocutionary force of this statement but also the rights of the different actors in the sentence (i.e. the teacher educator’s duty to “tell” and the student-teacher’s duty to “act” wise and the right to be forewarned to do so).

Thus, in this exercise of identifying the rights and duties related to ICT use in the Rwandan context, I set out by identifying in the text claims relating to perceptions of ICT skills, ICT knowledge, or benefits resulting from the application of such knowledge and skills as a right owed or one that participants owed others or society at large. Claims about rights and duties were identified by understanding the moral order from which the participant spoke. For example, if a participant says that they use ICTs because students are their “younger brothers”, this puts the statement in the Rwandan cultural moral order and is therefore understood from this moral order as a duty meaning from the Rwandan cultural norms of the elder supporting the younger. Claims to ICT-related rights and duties in this study were critical markers of the kind of teacher identities student-teachers enacted or were expected to enact. Accordingly, complaints of not having received the necessary training by student-teachers were analysed as self and other positioning moves by means of invoking ICT training rights and duties. It is a combination of these insights that led to the interpretations reported in the following chapters.
Chapter 5: The ICT-using teacher as “backbone” and “instrument”

5.1 Introduction

This chapter explores how teachers are prepositioned in ICT-related policies and programmes so as to comprehend how this prepositioning influences the kind of digital teacher identities they enact in their practice. It answers the first research question: (1) What ‘digital teacher identities’ do policies assign to teachers in Rwanda? All the teachers’ positions, skills and responsibilities identifiable in the range of documents analysed are set against the backdrop of overall societal expectations from ICTs in the education sector, or what has been described as “social goods” that “some people want and value” (Gee, 2011, p. 6). Thus, the overall goal of the chapter is to paint the educational technology policy environment in which student-teachers—who are the focus of this study—negotiate their digital teacher identities. The chapter is organised into storylines as headlines. In each storyline, teacher positions, rights and duties are explored, using extracts from policy documents and programmes.

5.2 ICT is a driver for learner-centred pedagogies

This storyline represents ICT use as a key aspect of achieving the learner-centred pedagogy that the Rwandan education sector seeks to achieve. In this perception, classroom teachers—whose role is to teach and embrace learner-centred practices—are encouraged to adopt ICTs and through this technology adoption, create a new learning environment that empowers the learner. Citing the urgency of the learner-centred pedagogy and the hopes entrusted on technology to achieve it, various policies make it a duty of educators to use ICTs in specific ways. As the extracts below show, teachers’ use of ICTs is presented as mandatory through the use of a “heart” metaphor that underscores the vital role of ICT usage in Rwandan education system.

[1] More importantly, the policy will ensure that technology is integrated in all education processes i.e. preparation, delivery of lessons, assessments and research. (ICT in Education Policy, p.4)

[2] The use of ICT in education shall be considered as the heart of the entire education system. (Education Policy, p.8)
The likening of ICT use in education to the function of the heart in a living body asserts the necessity for teachers’ ICTs use in every aspect of their educational practice [1] for the Rwandan education sector to remain alive [2]. This characterisation implies that non-ICT using teachers would be failing their duties and potentially sabotaging the entire education system at the risk of causing the education sector’s hypothetical cardiac death. The aim to achieve ICT adoption in all aspects of education [1] highlights educational actors’ duty to use ICTs in every area of their educational practice, from preparing to delivering and researching educational activity. As most of the activities listed are activities that are done by teachers, their use of ICTs while engaging in those activities is therefore a policy mandate.

Considering the recent learner-centred curriculum in the country’s education, the goal of this generalised ICT integration in education is to prepare graduates who possess so-called “21st century skills”:

[1] Lastly, students must be prepared for the 21st century and given abilities needed to succeed and thrive in today’s complex, technology-based global economy, and to be active 21st century global citizens... Technology in education enables the development of these important skills. (ICT in Education policy, p.3) [my emphasis]

[2] ICT in education should not be considered as the end per se, but as a pedagogical tool to help students become collaborative, problem-solving, creative learners through using ICT so they will be effective citizens and members of the workforce. (Certification Standards, p.2)

These extracts imply that ICT in education brings about the needed skills for students to become the desired “effective citizens” and successful graduates on the job market. [1] [2]. Here, there are two membership categorisations (citizenry and workforce) whence the policy maker avails positions for students to take up upon graduating. Learners are positioned as future competitors on the global market and therefore requiring transnational skills—with the implication that these skills will be fostered through ICT use by teachers who are both the product of the process as well as drivers of this outcome. It is noteworthy that the characterisation of the skills that ICTs would help to develop among students uses concepts such as “global citizens”, “global economy” both of which are borrowed from the globalisation movement wherein the teachers and students are assigned positions to take up. Citizenry and workforce memberships are not only presented as dependent on skills. They are presented
as competitive positions at a global scale, thereby making their attainment an ultimate positioning that students and educators are compelled to achieve (note the use of “must” [1]) by using ICTs as a tool in their quest to becoming, not just citizens but “effective citizens” [2].

Therefore, not using ICTs leads to a negative positioning of teachers because it makes them a hindrance to students’ skills development and claims to positioning as effective global citizens. This is a position that teachers would expectedly avoid. The idea of learner-centeredness is present as are students’ interests that must drive teachers to adopt ICT-infused educational practices. From a teacher education standpoint, the expectation that ICT adoption enables the development of 21st century skills also prepositions teacher educators as already possessing those skills because “teacher educators cannot teach what they do not know” (Goodwin et al., 2014, p. 284).

Given that educational technology use in Rwanda is extremely limited, the mandated ICT usage could be seen as an aspiration that shows available positions that teachers may eventually take up rather than positions that must be taken up presently. This is particularly important not only because ICTs are expected to support the development of learner-centred pedagogies that foster collaborative and problem-solving skills [2], but also because ICTs are expected to usher in the very learner-centred pedagogy on which the development of such skills depends. The following policy statement expresses it through its use of the word “emergence”.

Using ICTs to support the emergence of teaching and pedagogical student-centred approaches and encouraging research and collaborative learning (ICT in Education Policy, p. 10)

The expectation that ICT use will “support the emergence” of student-centred pedagogies is an admission that these pedagogies are yet to “emerge”. This underscores the aspirational nature of ICT-related positions that practicing teachers may take up in regard to ICT-supported student-centred pedagogy. The aspirational nature is also evident in a story recently featured on the Rwanda Education Board’s website quoting in its title a head teacher saying “ICT is the hope and backbone of education in the near future”(Rwanda Education Board, 2021). The “near future” timeline underscores an implicit acceptance of teachers’ ICT-related positioning as mainly aspiration. This could explain why the proclaimed ICT’s
“transformational” role in creating learner-centred environments (Rwanda Education Board, 2021) appears at the periphery in teacher education programmes (see extract below).

A variety of teaching strategies and methods as well as teaching and learning aids will be applied. These will include lectures, using exercises and quizzes, using discussions during the teaching and learning process, as well as using both the blackboard and the computer to provide clarifications and help the students make their own notes. (*Programme descriptions, n.p.*)

The above extract clearly shows limits to policy ambitions of using ICT integration to achieve pedagogical transformation espoused in the policies. Rather than making ICT “the heart” of the training as ICT policies recommend, teacher education programmes present ICTs as serving to “make notes” and “provide clarifications”. It is noteworthy that the statement avoids active sentence constructions in discussing the application of “teaching strategies and methods”, thereby avoiding to explicitly position any actors as dutybound to use the proposed variety of methods. Unlike the policies that call for a full integration of ICT at every level of education, there was no indication in the *Programme descriptions* that teacher educators were required or expected to use ICTs in every aspect of their practice. Although all modules in *Programme descriptions* contained a section which included desired ICT skills to be developed by student-teachers, only eight modules (out of 22 analysed) minimally characterised ICTs as part of their teaching strategy. This narrow integration of ICTs in teacher education limits the possibility of student-teachers to experience technology-led, learner-centred pedagogy in their own training, an experience that impacts their developing digital teacher identities.

Policies express the intention of “Ensuring that teachers are able to... plan, schedule and deliver more personalized and effective teaching and learning; ” (*ICT in Education Policy*, p.12). The expression “ensuring” assigns to other actors—not the teachers themselves—the duty to “ensure” that teachers are put in the described conditions. Yet, although the ability to deliver personalised learning alludes to the learner-centred approach to ICTs are expected to foster, teachers are warned against using ICTs in creative ways. This is what is expressed in the following extracts that warn teachers against using ICTs to “ruin” learning or in ways that do not fall “within existing teaching and learning framework”.

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ICT device in schools must be well efficiently used within the existing teaching and learning framework to enrich pupils’ classroom experiences. Teachers must use ICT in their lessons... REB [Rwanda Education Board] is emphasizing the use of ICT device in the lesson preparation and during the delivery of the lesson. All ICT device [sic] in schools must be appropriately used during lesson preparation. (Guidelines, p.3) (My emphasis)

When inappropriately used, ICT devices can ruin the learning. It is recommended that educators identify carefully the appropriate devices and when to use them in their teaching subjects. (Guidelines, p.3).

In the above extracts, teachers are compelled to use ICTs in their lessons, but this compulsory use must be “efficient” [1] and “careful” [2]. This efficient and careful ICT use advocated for has an additional requirement of happening within the “existing framework”. This need to fit ICT usage within the existing framework may restrict teachers from using ICTs in innovative ways. Analysed teacher education programmes appear to heed the recommendation to fit ICT usage within the existing framework. In Programme descriptions for instance, ICT-related objectives are limited to student-teachers’ use of ICTs for sharing information using ICTs, mainly to facilitate the transmission of complex information. In one module, this is expressed as: “use ICTs to convey complex sociological and philosophical ideas within a relevant educational context”; in another module, ICT usage is limited to the requirement to: “Write and hand in word-processed assignments.” (Programme Descriptions) These ICT uses—like handing in word-processed assignments rather than handwritten ones—allow student-teachers and their teacher educators to position themselves as educational ICT users within the existing framework. However, such ICT applications are a substitution of existing practices (handwriting) with an ICT equivalent (word processing) that fall short of ensuring that student-teachers are capable of using ICTs to create an innovative learner-centred pedagogy environment (Hamilton, Rosenberg, & Akcaoglu, 2016).

5.3 Teachers need an ICT culture

This ICT culture storyline suggests that, for ICT integration to be successful, teachers must adopt an “ICT culture” that will lead to wider ICT adoption in all sectors of the country. This desired ICT culture consists of ICT skills but also attitudes and values towards ICTs that teachers are expected to develop because it symbolises an appreciation and awareness of the potential role of ICTs in the national ambition to “build a knowledge-based and technology-
led economy” (Education Policy, p. 5). Rizvi and Lingard argue that “policy tries to change the behaviours and practices of others so as to steer change in a particular direction” (Rizvi & Lingard, 2009, p. 7). Similarly, analysed policies try to change how teachers (and through them all Rwandans) behave with and around ICTs to achieve a generalised adoption of an “ICT culture”. The expectation for teachers to possess specific values and attitudes towards ICT evokes “the authoritative allocation of values” that policies are often known to engage in (Rizvi & Lingard, 2009, p. 8). The adoption of this ICT culture is therefore a teacher’s duty, the lack of which prevents ICT integration in schools, as the following extracts indicate.

[1] …due to a lack of ICT culture and of understanding of its possible applications and benefits in education, communities and educational institutions are often reluctant to adopt ICT and adapt their teaching methods. (ICT in Education Policy, p. 7)

[2] For successfully integrating ICTs in education, curriculum revisions must be continually conducted, along with training on ICTs and ICT-enabled teaching and learning taught as both a subject and pedagogy using learner-centred and interactive methods. (ICT in Education Policy, pp.11-12) (My emphasis)

In the above extracts, institutional reluctance to adopt ICTs is perceived as resulting from a lack of ICT culture. Teachers feature prominently in this claim, especially in the reference to “adapting their teaching methods” [1]. The positioning of educational institutions as “reluctant to adopt ICT” in their teaching is unfavourable positioning and criticism of those institutions based on their ICT culture. The characterisation of educational actors as lacking an understanding of potential affordances and applications of ICTs in their institutions [1] is also an implicit positioning aimed at criticising the lack of training but also asserting teacher training in ICTs as a strategy to promote the desired ‘ICT culture’.

Some policy documents contain pledges that teacher education programmes would be “Providing pre-service training of teachers on the effective utilization of technology (software and hardware) in their teaching and learning” (ICT in Education Policy, p. 12) while others underscored the need to develop teachers’ understanding of “existing and planned national policies related to ICTs in education” (ICT Essentials for Teachers, p.6) during their training, in addition to developing knowledge of the tools and their pedagogical application. Teacher education programmes also allude to this expectation through the stated goal to develop student-teachers’ ability to “Debate the rationale, policies and practices related to ICT
integration in teaching and learning.” (Programme Descriptions). The word “debate” here is very important as it relates more to cognition than implementation of the said policies. This contrast between policy pledges and objectives of programmes implementing them is a reminder that “once policy leaves the page and enters the ‘real world’, the messiness begins.” (Ulmer, 2016, p. 1392)

Teachers’ adoption of an ICT culture is expected to enable the realisation of key national ICT-mediated development objectives. Thus, teachers are positioned as future ICT users supporting the attainment of these objectives in their institutions and communities. Yet, the adoption of an ICT culture and the resulting ICT integration depends on external factors that make the existence of that ICT culture possible. This is suggested in the expressed need for...

[1] Clear and effective policies that encourage and empower teachers and students to use ICT as an integral part of the education process’ (ICT in Education Policy, p.5)

[2] Rwanda’s ICT challenges mainly concern structural and cultural change. For instance, awareness for the benefits of ICT is still not widespread...” (SMART Rwanda Masterplan, p. 95)

[3] The major bottleneck remains the lack of access to electric power, equipment and trained teachers, and lack of awareness of ICT. (Education Policy, p.16)

[4] ICT is at its embryonic phase in the education system, even though some initiatives have been started for teaching and learning using ICT facilities. (Education Policy, p.16)

The above extracts explain why the ICT culture is not yet adopted. The reference to the need for policies empowering teachers [1] not only indicates a new position for teachers to take up as “empowered” educational ICT users, but also acknowledges that existing policies do not empower teachers. This casts teacher empowerment as a component of the needed ICT culture. However, though policies present technologically empowered teachers as critical actors in the ICT culture adoption, they also acknowledge actions that are beyond teachers’ responsibilities in achieving the desired ICT integration [2]. The admission to the need for structural changes—which cannot be done by teachers—is an indication that there is also a lot to be done prior to the teachers’ adoption of the ICT culture. Structural changes in teacher education could potentially empower teachers with skills and knowledge needed to
reposition themselves from being ICT adoption “bottlenecks” to more favourable positions. This need for changes is consistent with observations that “radical structural changes to education systems and schools are needed if schooling is to be transformed by ICT” (Somekh, 2008, p. 450). The need for structural changes [1, 2] is even more important because of the acknowledged lack of human and material resources [3] which still hold the adoption of educational ICTs in an “embryonic” state [4].

Teachers’ adoption of the ICT culture is not expected to be immediate but something that they progressively get into. This is conveyed in the idea of “trajectory” from “basic level” to “intermediate level” and finally “advanced level” which are “…three levels of certification based on the Rwanda ICT Essentials for teachers and the UNESCO ICT Competency Framework for Teachers…” (Certification Standards, pp. 2-3)

At each of these levels, teacher categorisation is based on different factors ranging from the acquisition of “basic principles” at the basic level to the use of ICT tools at the intermediate level and the enhancement of learning at the advanced level. Only teachers at the advanced level are positioned as capable of using ICTs to enhance learning in their respective subjects. Although the developing of the student-teachers’ ability to “debate” ICT policies expressed in teacher education programmes is not categorised at either level, it can be seen to fall at or below the basic level, thereby suggesting that the teacher training programmes provide only the minimum to their student-teachers. This is because ICT training at any of these levels is only “recommended”, a word-choice that implicitly positions teacher education providers as decision makers on whether to provide such “recommended” ICT training or not.

5.4 ICT usage benefits teachers

This storyline casts teachers’ use of ICTs as primarily in their own interest and therefore seeks to encourage teachers to adopt ICTs because it benefits them. This is done by focusing on the utilitarian value of ICTs for teachers in various areas. As if drawing from the view that teachers who see the ‘utilitarian’ side of technology are more likely to adopt them (Lam, 2000), policies present ICT use as an ideal response to teachers’ own professional development needs, with an implication that their need to improve and upgrade their skills and positioning can be met through ICT adoption.
ICTs can also be used to strengthen teacher professional development thereby contributing to the improvement of quality of education. *(ICT in education policy, p.3)*

It is important to note here that the statement uses an expression of possibility (can) and a passive construction. These two discursive strategies serve to emphasise that teachers have the choice to choose ICTs and develop their ICT skills or not. The passive construction put emphasis on ICT-mediated professional development without specifically mentioning the teachers, even though the statement is about teacher development. The statement shows teachers the positions they could claim if they adopt ICTs to achieve professional development—i.e. trained, qualified and technologically competent teachers who would help improve the quality of education in their country. Thus, given Rwanda’s desire to become a technology-mediated, knowledge-based economy, the possibility to use ICTs for professional development avails desirable positions for teachers to take up. These positions are implied in statements that underscore the role of ICTs such as...

[1] ICT will serve as a core element in the knowledge-based economic development. *(SMART Rwanda Masterplan, p. 23)*

[2] ...(ICT) is considered as a ubiquitous tool that will energize the country socio-economic development. *(ICT Essentials for Teachers, p.1)*

[3] ICTs could play an important role in accelerating the socio-economic development of the country and creation of an information and knowledge economy. *(SMART Rwanda Masterplan, p.16)*

As key actors training the next generation of citizens driving this knowledge-based economy [1], technology-using teachers are therefore critical to making ICTs a “ubiquitous tool” and a “core element” in their own profession but also in that of their students [1, 2]. The expression “will energize” [2] implies that without this ICT use (including by teachers in training the next generation), the country risks remaining lethargic. The use of the future tense implies that the “socio-economic development is not yet “energized” because of a low uptake of ICTs. Hence, turning teachers into educational ICT users is an economic imperative upon which depends the successful ICT training of the next generation.

Teachers are also presented as beneficiaries of their adoption of ICTs because ICT use would reduce their workload, an alluring promise for teachers in Rwanda where teachers teach large, under-resourced classes. The promise of reduced workload is thus an invitation for
teachers to imagine their future selves after ICT adoption with lighter workloads. This is expressed in the following extract.

[1] Courses which are interactive and multi-media based will enable students to learn on their own and facilitate the teachers to prepare lessons.” (Guidelines for Teaching Timetable on the usage of ICT devices in schools, p.2)

[2] ICTs can help simplify the use of regular assessments to keep track of student performance. (ICT in Education Policy, p.3)

The above extracts imply that by using technologies that enable students to work on their own, teachers would free up time in their schedule, while having spent even much less time preparing their lessons [1]. This benefits teachers by reducing the time spent on assessments which ICTs are expected to “simplify” [2]. The word choice implies that not using ICTs makes the teacher’s assessment practices undesirably complex and burdensome for them. The fronting of “interactive courses” [1] and ICTs [2] as subjects while teachers are either only implied as assessment administrators [2] or simply presented later as potential beneficiaries along with their students [1] is noteworthy. These sentence constructions emphasise ICT practices that would allow the teachers to attain the implied positioning, while the initiation of such practices is left to appear as a teacher’s agentive decision. This highlights the digital identity of teachers who would benefit from ICTs, i.e. teachers who engage in educational ICT practices described in these policy documents. Consequently, encouraging teachers’ ICT acceptance and integration in the classroom becomes an invitation to teachers to care for their interests and avoid a potential negative positioning in the future.

5.5 ICT use is a means for educational quality and accessibility

This storyline presents the use of ICTs as a requirement for achieving quality education but also for bringing about generalised, non-discriminatory access to education. It depicts educational quality and accessibility as key priorities in the Rwandan education sector. Policies indicate that actions aimed at creating ICT access would benefit everyone, a claim that also echoes the “unity” that education is expected to foster in the post-genocide Rwandan society. The expectation that ICT would usher in educational quality and accessibility for Rwandans comes with the positioning of all learners as equal in their right to access ICT-mediated, quality education. This is evident in stated policy objectives:


[3] Using ICTs to provide educational opportunities to all Rwandan citizens regardless of gender, age, geographical location, or special educational need. (*ICT in Education policy*, p.11)

It is noteworthy that inclusivity is repeatedly claimed for Rwandan learners without being restricted by their subject, level of study or location [1] [2]. The aspect of location is particularly important in the Rwandan educational discourse because locations (regions) were used to discriminatorily exclude some citizens from accessing public education under the “ethnic and quota system,” that became an emblem of educational discrimination and exclusion in pre-1994 Rwanda (Mclean Hilker, 2010; Rubagiza et al., 2016). The pledge for people’s access to education “irrespective of their location” [2] is therefore both an appreciation of ICT affordances and an acknowledgement of every Rwandan’s right to quality education—a value teachers are expected to uphold in the post-genocide Rwanda. This acknowledgement makes warranting this right to access ICT-mediated quality education a duty for every classroom teacher implementing the policy.

Here, ICT-using teachers are considered indispensable to the attainment of the desired quality education and teachers’ professional development. In practice, teachers are invited to use ICTs in their classrooms in ways that enhance learning as stipulated in the following extract.

Teachers and learners are expected to use ICTs for teaching and learning purposes to improve quality education. Teachers will be guided on how to use ICTs in teaching and learning, including examples of lesson plans... (*Guidelines for integrating ICT in education*, p.3)

The expectation announced in the above extract implies that it is a duty for both teachers and students to use ICTs in teaching and learning. However, this duty is also accompanied by their right to be “guided” in meeting these expectations. The acknowledgement of this right to guidance in using ICTs exonerates teachers from blame if they fail or are unable to use ICTs because their own rights to be supported are not fulfilled. Essentially, the combination of ICT
usage rights and duties here creates a range of positions for teachers to take up depending
on the fulfilment of their ICT rights and duties.

Overall, in a country where access to education was used as a political weapon, it is thus a
strong statement when policymakers pledge to make educational access a right for everyone.
It is noteworthy that the policy enumerates characteristics that have often been used to
determine who should or should not have access to education in Rwanda, i.e. age, location or
special educational needs [3]. Therefore, the policymaker is engaging in an institutional
positioning here, by rejecting practices that were deemed discriminatory and pledging to use
ICTs in achieving equal access to quality education. This promotes equal access to education
as a ‘social good’ for Rwanda and assigns persons and institutions implementing the policy a
duty to use ICTs in achieving it.

5.6 Teachers’ ICT use is compulsory

This storyline introduces the compulsory use of ICTs by teachers as inevitable and justified
because of existing ICTs benefits and expectations. The storyline suggests that since teachers,
learners and the country in general benefit from ICT usage, compelling teachers to use ICTs is
necessary. Teachers are assigned a duty, as citizens, to use ICTs in their activities, especially
given their primal role of educating the next generation. In the extract below, teachers are
positioned not only as critical to the education of the next generation, but also as dutybound
to use ICTs in this endeavour.

[1] Educators/teachers and students must use available ICT device in school to enrich
teaching and learning experiences in all subjects at all levels.” (Guidelines, p.3)

[2] Teachers need to incorporate the use of technology in their lessons so that
students are equipped with competencies and skills that sooner or later be applied to
create up-to-date, unique and long-lasting solutions for the present generation.
(Guidelines, p.5)

The above extracts focus on teachers and what they “need” or “must” do in order to meet
expectations held of teachers. This expression of the needed action on behalf of teachers
alludes to the skills they need but also what they are not doing, i.e. incorporating the use of
technology in their lessons. The choice of words like “need” and “must” suggest that there
are positions that teachers must take up—i.e. as technology-using educators—and the
necessity and urgency for them to take up those positions. In fact, with ICTs seen as enabling
quality education which is central to the search for immediate and long-lasting solutions to challenges of “the present generation” [2] in a poverty-stricken post-genocide nation, teachers are effectively compelled to incorporate ICTs in their teaching if they are to be acknowledged as doing their part. Teachers are thus positioned as change agents—for using ICTs to bring long-lasting solutions—but also as agents in need of change, given that their duty to use ICTs requires the development of new skills, attitudes, behaviours and practices.

The positioning of teachers as agents in need of change is evident in one of the stated specific objectives of the Rwanda’s teacher development and management policy which enumerates attributes of the desired teachers.

[1] …the Ministry of Education will overhaul and re-align the nature of teacher training, development and management pattern so as to aim at… Enhancing the image and status of the teacher as a qualified, dedicated expert, and a vital engine of nation building and development. (Teacher Development and Management Policy, p.13

[2] Contribute to the development of ICT in educational innovations in schools (Programme descriptions)

[3] Initiate change and participate as change agents in the development of learning technologies at the school and community level (Programme descriptions)

The student-teacher’s exit profile described in the above extracts [2, 3] reveal a positioning of teachers as contributors to innovative ICT-supported educational practices [2] as well as “change agents” [3]. These reflect the new teacher “image and status” policies seek to create [1], and thus the kind of teacher identities desired. The positioning of teachers as “change agents” regarding ICT use and irrespective of their specialist subjects expands the understanding of teachers beyond their subject specialism to include among their duties the responsibility to become advocates for ICT use and adoption in schools. Such positioning reflects previous contentions that “teachers do much more than literally teach content.”(Kennedy, 1991, p. 660).

The “vital engine” metaphor [1] used here asserts the central role teachers must play in national ambitions to reach the expected outcomes. Since this nation-building is also premised on the adoption of ICT as a key tenet, teachers are thus expected to become “qualified, dedicated expert” not only based on their subject expertise but also their ability to use ICTs in teaching their subjects. It is only then that they can successfully claim the
positioning as a “vital engine of nation building and development” [1]. Thus, teachers as “a vital engine of nation building” is a position created for teachers to take up. The use of “will” expresses such a future positioning—but one which teachers are still unable to gain and would not be able to gain unless policies and training approaches are “overhauled”.

5.7 Teachers are the backbone of the system

This storyline underscores the centrality of teachers in the educational and overall national ambitions of adopting ICTs and becoming a knowledge-based economy. In statements expressing Rwanda’s ICT-led development ambition, teachers are positioned as its cornerstone because of their duty in training their students to become skilled labour. This reflects the contention that “Nothing or no one is more important to school improvement than a teacher” (Stoll, 1999, p. 507). In fact, education policies in Rwanda emphasise the central position of teachers in achieving the country’s economic development goals:

[1] Teachers are expected to be sufficiently trained and competent to help in the moulding of the young people to translate theoretical knowledge into employable skills. (Teacher Development and Management Policy, p.5)

[2] ...the teacher is the main instrument for bringing about desired improvements in learning” (Teacher Development and Management Policy, p.4)

[3] The quality and utility value of education depends on the quality and competence of the teaching staff. (Teacher Development and Management Policy, p.5)

The above extracts define the teacher’s duty as including the task of “moulding” their students into employable citizens [1] and creating the needed transformation that potentially enables such moulding [2]. Teachers are expected to “mould” their students, but they also need to be readied to undertake this duty by undergoing training. The use of the adverb “sufficiently” [1] to quantify the level of training signals that the needed training would be different from what is already available to teachers. It is noteworthy that teachers are seen from a purely utilitarian position, i.e. in terms of the economic contribution of their work. This is evident in the implicit advice to focus on “employable skills” in their teaching [1] and the reference to the “utility value” [3] of education.

Thus, the policy underscores the central positioning of teachers in achieving the desired economic outcomes that education in general will bring, but only as indispensable
“instruments” of change. While in some instances the policies depict teachers as agentive, the “instrument” metaphor above [2] objectified teachers therefore positioning them as devoid of agency and control. This characterisation of teachers as ‘instruments’ reflects an education policy model “which sees the role of teachers as being to implement decisions about education taken elsewhere” (Croll, Abbott, Broadfoot, Osborn, & Pollard, 1994, p. 336). Yet, despite being seen as “instruments”, teachers are also positioned as critical entities on whom the education sector depends. This is reflected in the “backbone” and “key” metaphors used below.

[1] Teachers and trainers are the backbone of the education system, and the number, quality and motivation of these professionals has a strong influence on the overall quality of the system and the learning outcomes of students. (Education Sector Strategic Plan, p.42)

[2] Teachers remain key to the successful integration of ICT in education… A policy change will be made to require all teachers to complete a minimum number of training courses per year on the integration of ICT… Teacher training will also be included in Pre-Service Teacher training programs. (ICT in education policy, pp 5-6)

By positioning teachers as the ‘backbone’ of the education system, the policy sees them as indispensable actors keeping the system up, just like a body without a backbone would not stand upright. Like the “instrument” metaphor discussed earlier, the “backbone” [1] and “key” [2] metaphors reiterate the functional perception of teachers and their positioning based on how useful they are to the education sector and the country in general, especially when they are acknowledged as “professionals” [1]. The use of the “key” metaphor [2] for example, positions teachers with regard to their importance in achieving ICT adoption in schools, when considered from the viewpoint that one cannot open a door without its key. Essentially, these metaphors assert an acknowledged the indispensability of teachers in the adoption of ICTs in the education system.

However, teachers are not freely assigned this position but must earn it by fulfilling their training duties, i.e. undertaking yearly ICT trainings [2]. As with other references to teachers’ ICT training, there is no immediate requirement for teachers to become technologically competent. Instead, their duty to gain ICT training is only projected and made dependent on a future “policy change” as well as a provision of resources. Therefore, the pledge to enact a “policy change” anticipates favourable positioning for teachers regarding ICT adoption while
underscoring the fact that teachers are still unable to claim their anticipated positioning as “key” or “backbone” to ICT integration in schools.

In fact, teacher education programmes analysed show a limited provision of skills that would enable teachers to become “key” to the adoption of ICTs in their respective schools. Accordingly, the extract below shows a limited focus on practical skills for technology integration for the preservice teachers.

This module aims at providing learners with a common framework for discussing issues relating to the use of Information and Communication Technologies (ICTs) in teaching and learning. Candidates will gain a broad understanding of ICTs in teaching and learning and how ICTs are changing and will change the world's education systems. This module also aims at enabling candidates to use ICTs as pedagogic tools in their professional practices. (*Programme Descriptions, n.p.*)

This extract suggests that the most important aim of the module is not ICT integration but rather the development of ICT awareness. The stated aim does not primarily position teachers as future ICT users but rather as potential ICT discussants equipped with “a common framework” to discuss such issues. In accordance with research findings that people’s experiences in the classroom influence how they teach once they become teachers themselves (Oleson & Hora, 2014), the goal to develop “understanding” rather than the ability to use ICTs implicitly acknowledges the unlikelihood of student-teachers becoming ICT users. Although student-teachers are implicitly positioned as future users of ICTs as “pedagogical tools” later, this positioning only appears as an add-on as could clearly be seen through the use of “also” introducing the need to “enable” student-teachers to use ICT tools. In fact, the sequence of the aims in the above extract shows a hierarchy of positions that student-teachers would take up as a result of their successful completion of their ICT training module and the teacher training programme.

5.8 Conclusion

Overall, the above analysis shows that ICT policies, through a range of storylines, assign teacher positions and identities that are linked to national development goals, namely the creation of a technology-led, knowledge-based economy. This is consistent with intentions of other ICT in education policies which usually aim at making an economic impact in the countries where they are developed (Kozma, 2005). The ICT-related positions assigned to
teachers in these policies are mostly unavailable to them immediately but ones they can take up once certain conditions are met. This is also typical of educational policies as they “seek to represent their desired or imagined future as being in the public interest, representing the public good.” (Rizvi & Lingard, 2009, p. 6)

An important finding in this policy analysis is that rather than assigning identities to teachers directly, ICT policies appear to incite teachers into imagining the kind of teachers they could become if they were technologically competent. This potentially explains why positions assigned to teachers in policies are linked to teachers’ personal benefits or those of their country, whereby they would still be a beneficiary of country’s success. The potentially accessible positions for teachers could therefore become their motivation to learn how to use ICTs, thereby echoing the understanding that “possible and imagined selves” are integral to the learning process (Ryan & Irie, 2014). The prompted self-imagination is characteristic of the under-resourced context where these teachers would not be able to fully enact their imagined selves without ICT resources. Thus, “imagination” could lead teachers to embark on a “trajectory” of becoming actual ICT-users, a process that may go in tandem with the increasing access to ICTs in their context.
Chapter 6: “We tell them to be wise”: Teacher educators’ ICT-related positioning of their student-teachers

6.1 Introduction to chapter

In this chapter, I use data from interviews with five teacher educators (Irene, Bernadette, Maximilian, Gerard and James, all pseudonyms) to answer the second research question: How does the positioning of student-teachers by teacher educators affect their enactment of digital teacher identities during the internship? The analysis presented in this chapter identified a range of positions and digital teacher identities assigned to student-teachers through teacher educators’ development of ICT-related storylines. These positions reveal how teacher educators and the teacher education programme shape student-teachers’ digital teacher identities. The chapter is organised into storylines and sub-storylines used as headlines. This organisation allows a more “methodical” discussion of the positioning taking place within those storylines.

6.2 ICT use is Compulsory and aspirational for educators

Teacher educators viewed ICT use as compulsory for teacher educators and their students because of the socio-economic and educational value of ICTs. They emphasised how ICT use benefits educators by enabling educational access, inclusivity and by easing teachers’ workload. These views were also available in educational ICT policies (see Section 5.5. In this storyline, the use of some ICT tools is singled out as compulsory either because of their relevance to a taught subject, the whole education sector or because of their potential contribution to the society at large. In the following two sub-storylines, I highlight how, during interviews, teacher educators positioned themselves and student-teachers in relation to compulsory ICT use.

6.2.1 Teacher Educators’ compulsory ICT use

In this study, teacher educators positioned themselves as obliged or bound to use ICTs because of ICT’s potential contribution to the learning and teaching process, especially for their subject area—English. They claimed to see ICT use as essential for presenting information to students and teaching language aspects, especially listening. From this vantage point, they claimed a duty to use ICTs in fulfilling their teaching obligations. James suggested that teacher educators were using “Internet which is compulsory” and “some other ICT tools
that we are using in the classroom like projectors and uh... maybe checking even assignments online, stuff like that which is also related to Internet.” (James). Here, James identified the use of the Internet and positioned teacher educators as compliant ICT users through his “ICT tools we are using” assertion.

Yet, for some teacher educators, this compliance was not primarily motivated by pedagogical goals. Instead, they saw compliance with the requirement to use specific tools in their duties as a means for safeguarding their positioning and identity in the institution. This led to practices whereby the purported educational use of ICTs like Moodle was completely disconnected with teacher educator’s teaching activities. This is what Irene and Gerard explain below.

[1] ...we have uploaded our modules. Modules are there because it’s a... it's a must, it’s a must. It’s in our performance contracts. But even if we have uploaded the model, I mean the modules... we don’t often use Moodle with our students because we know they will not be able to use it. (Irene)

[2] I use Moodle but not in teaching... uploading some content, updating some content on Moodle, but I didn’t enrol my students. (Irene)

[3] ...they [university management] don’t so far oblige each lecturer to teach using Moodle because they know there can be some problems. (Irene)

[4] ...personally, I am now in the process of getting ready with the module that I taught ... normally, it is said that the modules are to be uploaded beforehand. But then ... I got the information when I had started the lesson and I know many people are in the same situation. But, when we have the module, we have to upload the module so that the students can access those. (Gerard)

The above extracts present the use of ICTs as a compulsory practice for teacher educators who see it as “a must.” The teacher educators quoted above show that they are (in the process of) complying with this requirement. While Irene positions herself as compliant with the demand by uploading materials to the learning platform Moodle and extends this positioning to all other teacher educators through her choice of “we” instead of “I” [1], she also positions herself and others as justified in not using the platform with their student-teachers. Here, there is a prepositioning of student-teachers as unable to use Moodle even before giving them access: “we know they will not be able to use it” [1][3]. This makes teacher
educators’ claim that they are using Moodle—a platform introduced at the institution to enhance learning—questionable given that students are excluded from a platform that is supposedly aimed at enhancing their learning.

The institution itself is positioned as complicit in the teacher educator’s decision not to enrol students on the course on Moodle because they also reportedly “know” that using the platform with students is problematic. Consequently, the institution is potentially content with teacher educators limiting their use of the platform to uploading content without enrolling students[2] [3]. The compulsory use of Moodle has been reinterpreted to become limited to uploading materials, without giving students access to those materials.

The reason for this watered-down expectation can be inferred from Gerard’s insinuation of what happens “normally” [4]; a way of suggesting that they were not practicing ICT use under “normal” circumstances. Thus, while Gerard recognised that he may not have followed the guidelines, he blamed the failure to the delay in communication (by the institution): “I got the information when I had started the lesson.” He then distanced himself further from any blame by underscoring that “many people are in the same situation”, a suggestion that all teacher educators were using Moodle in the same way. Here, it is noteworthy that at the time of the interview, Gerard had finished teaching and assessing students who had registered for the “module I taught” (note that he uses the past tense) but had not uploaded the content on Moodle.

Essentially, for both Irene and Gerard, meeting the compulsory use of ICTs—uploading materials on Moodle—was disconnected from the teacher educators’ pedagogical goals. The main drive for uploading these materials was safeguarding the teacher educator’s position within the institution by fulfilling their contractual obligations: “It's in our performance contracts.” [1] This should be understood within the Rwandan concept of performance contract, traditionally known as “imihigo” in which “Failing to meet these commitments usually led to dishonour, not only to the participating individuals but to the community as a whole. Those who achieved their pledges became role models in the community, and their exploits were echoed in history.” (African Development Bank, 2012, p. 6). In Rwandan public service—which includes public higher learning institutions like this where the teacher
educators worked—failure to score highly on *imihigo* pledges can lead to losing a job, which can be a dishonour, in addition to its financial implication.

It is therefore evident that teacher educators made an implicit decision to use Moodle in ways that spared them “dishonour” without making them deal with what they saw as “problems” of using ICTs in their context. Through these choices and actions, it can thus be argued that the teacher educators enacted a digital teacher identity that (1) enabled them meet the compulsory requirements to use the ICT tool mandated by their institution and (2) safeguarded their acquired rights and positions—e.g. recognition as an educator who meets their educational technology contractual obligations—from unfavourable positioning risks associated with the use of the tool with students.

### 6.2.2 Student-teachers’ compulsory ICT use

While teacher educators describe themselves as contractually compelled to use ICTs, they also positioned their student-teachers as equally “bound” to use ICTs in their lessons and other activities set out by the teacher educators. Student-teachers were positioned as duty-bound to use ICTs while still on the teacher education programme “to present in class” (*Irene*) or type and submit their assignments online depending on the teacher educator requesting compliance with ICT practices guidelines. In the extract below, Maximillian uses his context knowledge that student-teachers have been given laptops by the government to justify why teacher educators must be unforgiving towards student-teachers failing to use ICTs and “type their assignments” before submission.

[1] But tolerating those who don’t use ICT while they have facilities, no! Because...by the way, when you are not pushing them to use it, in the end they are the ones who... will not benefit in the future because after graduation, they go to the job market and the job market requires so many things, including ICT skills. Yes. So, they need to know how to use it and to integrate it in their teaching. (*Maximillian*)

[2] You know, if they are teaching listening, listening, they are bound to use these uhm... these ICT tools. (*James*)

Maximillian sees “pushing” student-teachers to use ICTs as a duty and therefore a strictly enforceable practice intended to guarantee a favourable positioning in the future. Relatedly, giving the listening skill as an example, James positions his student-teachers as “bound” to use ICTs because of the nature of the topic they teach—English: “if they are teaching
listening” [2]. However, within this storyline, student-teachers’ ICT use is made compulsory not only because they are future English language teachers but also because of the need for ICTs in society at large. In fact, some teacher educators suggested that compelling student-teachers to use ICTs on the programme prepares them to integrate in Rwanda’s increasingly digitised society. Bernadette explained this as follows:

[1] Yeah, of course, we expect them to use ICTs. Why? Because ICT is a cross-cutting skill. Yeah. In whatever you do, you need it. Whether being a teacher of English or a teacher of languages or a teacher of any subject, you need ICTs, yeah, to… facilitate your work, which is teaching, you need it. (Bernadette)

[2] All services, public services people get, most of them are provided through ICT, are provided online, yeah. So, that is also an indicator that there is that commitment and that... motivation and that pressure of the government to... make people learn and adopt the use of ICT, yeah. (Bernadette)

As shown in the above extracts, the position of a skilled ICT user is created for student-teachers to take up while fulfilling their duties as teachers of English and as normal citizens [1][2]. For the former duties, teacher educators are positioned as the enforcer of this skills development: note the claim “we expect them to use ICTs” [1]. For the latter, an even bigger entity—the Government—is presented as the enforcer of the compulsory use and adoption of ICTs by all citizens. It is noteworthy that student-teachers are positioned as beneficiaries in both cases (as teachers and as citizens) despite being “pressured” into adopting ICTs. This “pressure” is seen within the overall ambition to become a knowledge-based economy.

Yet, despite the pressure to adopt ICTs and the potential gains from this adoption, some teacher educators doubt the possibility of achieving a technology adoption overall and note the unfairness of expecting student-teachers to adopt ICTs while experienced teachers fail to do so.

You see, in many of the schools in Rwanda, when you look at them, they have teachers who have been serving for a long time. You have then other teachers who have been serving for relatively not long time. So, these teachers when you look at them, some of them, they are eager to use ICT... but they are not capable, some of them...you see, there is a discrepancy again among our staff, our teachers in schools when you look at them. But then, they expect everyone who graduates in these days to be capable of using ICT ... (Maximillian)
Here, Maximillian makes an insinuation about unfair expectations for student-teachers to meet the mandatory use of ICTs even though other educators do not meet such expectations. He uses student-teachers’ limited experience as reason for expecting less ICT use from them than experienced teachers whose positioning as “eager” but “not capable” of using ICTs underscored the “discrepancy” among teachers regarding their ICT skills.

By questioning experienced teachers’ ICT skills, Maximillian favourably positioned student-teachers whose ICT skills maybe questioned by their experienced colleagues during the teaching internship. Given that Maximillian claimed not to “tolerate” student-teachers not using ICTs while on the teacher education programme because they already had personal laptops, it can be inferred that his change of tone is not disinterested. First, his insinuated questioning of the unfairness of expecting “everyone who graduates [from teacher education] to be capable of using ICT” suggests a lack of conviction that ICT training on the teacher education programme has enabled all student-teachers to meet these ICT skills expectations. Thus, he positioned experienced teachers holding student-teachers to these expectations as unfair when they themselves cannot use ICTs. An implied assumption here is that student-teachers’ positioning as incapable of meeting their ICT expectations also puts into question their teacher educators’ own positioning. Hence, the unfairness claim is also the teacher educator’s own attempt to pre-emptively challenge being positioned unfavourably because of his student-teachers’ potential inability to use ICTs.

6.2.3 ICT modelling for student-teachers is not a teacher educator’s duty

Although teacher educators often acknowledged that the use of ICTs was compulsory and a contractual obligation, they did not fathom that modelling some ICT practices for their student-teachers was a duty. Instead, they presented this as a duty for other teacher educators whose duty was to teach ICT as a subject. Thus, although they were mostly language teachers before becoming teacher educators and were teaching language-related subjects, they claimed not to have foreseen the need to initiate their student-teachers into becoming ICT-using English language teachers.

Essentially, teacher educators distanced themselves from ICT modelling practices and rejected considering them as a duty within their teacher education responsibilities even when they deemed these practices necessary for language teachers. An exception to this was
Maximillian who claimed to be his student-teachers’ role model in using ICTs. We see this in the following extract

...there is a module they study which is called ICT integration in education. So, in that module, it’s where they tell them how to use ICT in education. But for me also as an educator, because I have an advantage of having studied education ...when I’m using ICT to teach them I always tell them I try to sensitize them that “Please, you can see me doing this but you will also need to use it when you go for your internship.” Yes. So, it is like a reminder. I tell them, “You see, when I'm pushing you to use ICT, to report... when I’m pushing you to use ICT to present your assignments, it is not in vain. It is because I want you...I’m doing it purposefully because I want you to acquire these skills and go when you will become teachers and start using them. When you go for internship, you start using them.” It is like sensitizing them, but of course being their model. (Maximillian)

In the above extract, Maximillian shows that he “always sensitises” his students about using ICTs in their teaching. He shows that they are expected to learn how to use ICTs in education in another course unit. This allows him to position himself as doing something unique. He demonstrates this further by claiming to “have an advantage” over other teacher educators in relation to modelling ICTs for his student-teachers because he had “studied education”. With this, he denied teacher educators who do not share the same background the right to claim being ICT role models for their student-teachers. It can be seen here that Maximillian made this claim in an attempt to avert any challenges to his self-positioning as an ICT role model for his student-teachers and his credibility as a role model who understands educational matters.

According to Samburskiy, (2013), while introducing themselves, teachers “understandably place extra emphasis on their academic affiliations, accomplishments and prior professional or personal experiences because that information could enhance their self-image as competent and seasoned educators.” (Samburskiy, 2013, p. 41) As shown in the above extract, Maximillian used his educational background to establish this credibility. His allusion to his professional training sought to give credence to his claimed ICT-modelling actions for student-teachers by representing his actions to be informed by training—with the implication that they are therefore pedagogically potent. This suggests that he considered it important for him to appear as technologically competent and capable of providing his students the ICT modelling they needed to become ICT-using teachers.
In his ICT modelling, Maximillian also showed that he understood the ICT challenges his student-teachers may face and therefore indicated that he advised them to anticipate and deal with them accordingly.

So these students, I tell them, “Please my friends, you can see with ICT you can teach phonology, pronunciation, with ICT you can teach sounds of English, with ICT you can teach texts easily because if the school has like a projector and you have a computer, you don’t have to take your time and write it on the chalkboard, and it takes your time, you see? You can use your computer and project it and students can read it.” I also tell them for example ... I encourage them to have dictionaries in their phones, to download applications or dictionaries on their phones. (Maximillian)

Maximillian positions student-teachers as his “friends,” an endearment aimed at convincing them to develop ICT skills that they deem crucial to their success. This relationship casts his recommendations to their student-teachers to develop practical ICT skills as a friendly advice that can be adopted or rejected at will. The student-teachers are positioned as capable of replicating these practices except when they are left powerless by the challenges in their placement schools. However, the ultimate end of the modelling is beyond the internship as the teacher educator shows that his modelling aims at preparing student-teachers for the job market. Maximillian therefore prepositions student-teachers as future jobseekers and characterises ICT skills as crucial in employment success. Although this enables him to cast himself as caring, empathetic and concerned about his student-teachers’ future career, it also shows him as fulfilling his duties to prepare them for a successful career by modelling for them marketable skills. Here, Maximilian reflects policies that cast ICT skills as a requirement for graduates’ competitiveness on the job market.

Unlike Maximillian, other teacher educators (especially Gerard and Irene) claimed that they had no duty as teacher educators to model ICT uses to their student-teachers. They seemed to position themselves as bystanders who had nothing to contribute to their student-teachers’ ICT skills development. In the following extract for example, Gerard claims the outsider position regarding student-teachers’ ICT skills before questioning their technological competences.

And I am not saying it as a person who follows them in that particular aspect [ICT skills], but as a person who watches from another perspective. Maybe the people who follow them, I mentioned that the ICT team, maybe those people know more, but
my own evaluation, like a person who is somehow aside, I would say that maybe there is more that is needed. The people who are directly concerned might say more, but that’s just an opinion. (Gerard)

Here, Gerard’s self-positioning by distancing himself from the ICT training of student-teachers enables him to reject any student-teacher’s ICT training duties. His claimed position as an observer “from another perspective” or a “person who is somehow aside” excludes such duties that are only available for those implicitly positioned as insiders. The same position affords him the right to criticise indirectly those in charge of student-teachers’ ICT training by indicating that, as an outsider, he has observed deficiencies in the way student-teachers are trained to use ICTs. These positions depict Gerard as a teacher educator uninvolved in his student-teachers’ ICT skills development even though it is considered as a crosscutting skill. His approach therefore exemplifies the observation that “Traditionally, teachers in HE [higher education] are teachers because of subject rather than pedagogic expertise” (Slimani-Rolls & Kiely, 2014, p. 426).

When directly questioned about the duty to ensure graduates are trained in accordance with current policies that underscore the use of ICTs at all levels of education, Gerard and Irene claimed ignorance about having duties related to their student-teachers’ educational ICT skills development. For example, in the extracts below, Irene claims to be an educational ICT user who never thought it relevant to encourage her student-teachers to become educational ICT users themselves.

[1] ...it's an approach that I have chosen, to use ICT. But I don't think about this... those teachers we are preparing, how am I supporting them to do the same when they are teaching? Because, for me, I do that because ... it's an easy way to teach, but next... from now, I will be telling them that “this is useful, you can use this, in the absence of this tool, you can use that, you can give this exercise, you can prepare... “so, supporting the students to create... to raise this awareness that they can also do it when they will be teachers in secondary schools or wherever. So, thank you for that. This is something I'm going to do... I didn't do before this interview. (Irene)

[2] “I didn’t think about telling them to imitate me... I didn’t think it is even one of my responsibilities to tell them that, to say that.” (Irene)

In these extracts, Irene positions herself as an ICT user but disinterested in encouraging student-teachers to adopt the same practices she believes make her teaching “easy” [1] [2].
She rejects having any such duty but quickly repositioned herself as willing and ready to model her ICT practices for students because not doing so was due to a lack of awareness of this duty [1] [2]. Hence, she positions herself as willing to change and credits the study for making her realise that modelling ICT practices for her students was a duty she could claim [1]. This positions her as a beneficiary of the interview, hence positioning the interviewer as a contributor to her change of approach to ICT modelling. (I discuss in details researcher positioning by study participants in Section 10.1.

Similarly, Gerard positioned himself as previously oblivious to student-teachers’ ICT practices during his visits to placement schools for assessment. Yet, ICT skills were among student-teachers’ assessable skills. Like Irene, Gerard then suggested that the interview had “aroused” his interest in student-teachers’ ICT skills and suggested he would be paying attention to how student-teachers use ICTs in their internship more closely, henceforth repositioning himself as “more interested” in student-teachers’ ICT usage.

I should repeat that you are making me more interested... you are arousing my curiosity to know actually what is happening. I will be paying more attention to that so that I know. Maybe I will try to encourage them more. And even myself, trying to know more, stress more the use of ICT because, for the moment we can't do without. We can't do without. In my time, we didn't know. You would go in the library, you have a book, you read it, you return it... you take another one.... But now, there are these means and perhaps I will pay more attention to the best way to use them.... and see what is really going on. (Gerard)

Gerard’s self-positioning as previously disinterested in student-teachers’ ICTs is put into personal educational experiences characterised by limited access to ICTs. The teacher educator’s self-positioning as technologically unskilled (“trying to know more”) highlights and reinforces the contrast between his perceived student-teachers’ ICT skills and his own. He uses his past educational experiences which were devoid of modern ICTs to justify not “knowing more” about ICTs. This could explain his positioning of student-teachers as technologically skilled because of their access to ICTs that he had not had access to while he was a student borrowing and returning physical books to a physical library. Gerard’s assumption and positioning of his student-teachers as technology savvy can thus be understood from the perspective that “people’s actions are embedded in their personal histories” (Vanassche & Kelchtermans, 2014, p. 118). In fact, Gerard uses his personal
educational experience to make sense of his current practices and positioning in regard to ICT usage on the teacher education programme.

6.3 ICT mind-set affects ICT integration

The ICT mind-set storyline (which appears as a localised variation of the ICT culture discussed in Section 5.3) casts ICT integration by student-teachers as dependent on an appreciation and acceptance of ICTs by the schools and other teachers in their placement schools. The storyline is a cluster of practices that inform ways of thinking about and approaching ICTs. There is an implication in the teacher educators’ discourse that some educators lack the “right” ICT mind-set, which leads to limited ICT use and adoption. As a result of this, positions such as harbourers of anti-ICT mind-set or traditional teachers (as opposed to modern teachers) are created within this storyline for different educational actors.

In the ICT-mind-set storyline, teacher educators engage in a “positioning by distancing” (Kayi-Aydar, 2019, p. 136). They blame educators within placement schools for any lack of ICT adoption because of their anti-ICT mind-set and therefore distance themselves from their student-teachers’ lack of ICT skills. The following extract from Maximillian is illustrative in this regard.

...sometimes you also find the problem of mind-set, the mind-set of the headmaster, the headmistress, the mind-set of other teachers within the school, the mind-set of some students.... So, the intern has some good initiatives to use ICT in teaching. But then when he or she arrives in the school they tell him, “No. Please! What are you doing? We have been doing it this way. What do you think you can do here? Hmm?” Then they start discouraging him. The problem of mind-set can also be a problem. And it is sometimes a challenge. We sometimes see it happening. (Maximillian)

As shown above Maximillian implies that student-teachers are technologically skilled and ready. Hence, he positions them as obstructed from using ICTs, not by a lack of skills but by the negative ICT mind-set of educators in their placement school who cling to their old anti-ICT claims: “We have been doing it this way.” The contrast between student-teachers’ “good intentions” for ICT use and the purported school leaders’ “discouraging” anti-ICT practices highlights the positioning of student-teachers as powerless. Maximilian underscores this powerlessness of his student-teachers in his reporting of what they are often asked: “What do you think you can do here?” Thus, he indicates here that student-teachers would have no
choice but to abandon their “good initiatives” to use ICTs (one student-teacher saw this as deliberate demotivation and obstruction as shown in Section 8.2.2.

Here, there emerges two categories of practitioners in the placement school, namely the ICT-minded educator category which includes student-teachers but also their educators who are capable of appreciating the rectitude of student-teachers’ intention, and the category of anti-ICT minded educators who are also obstructive to ICT initiatives. This latter category is presented as consisting of those with more power in school (i.e. headmaster, headmistress, experienced teachers), a reference that is used to signal that student-teachers cannot resist it. This also signals that teacher educators are equally powerless and cannot do much beyond contemplating the challenging situation of their student-teachers: “we see it happening”. Thus, the whole direction of the message is that student-teachers are not accountable for their lack of ICT use because they lack the power to impose their will. As a result, student-teachers’ ICT skills—and the programme from which they were expected to gain those skills—are excluded from any discussion of their failure to use ICTs. For the teacher, this assures them a continued favourable positioning.

In fact, many teacher educators underscored their claim to a favourable positioning in the ICT mind-set storyline by claiming to have forewarned their student-teachers about the resistance to ICTs that they may face during the internship. They thus reportedly advised their student-teachers to be cautious so that their attempts to use ICTs do not negatively impact their positioning in the placement schools. Maximillian and Gerard express this below.

[1] …when there is a problem of mind-set, dealing with a mind-set is not very easy. So, we tell them to be wise because if the school leaders don’t want to adopt changes in the school, so the student should not create those conflicts. They should negotiate, they should not do what the school can’t accept. If the school cannot accept some changes they want to bring, then what do they do? They should not do it secretly…through negotiations with the school leaders, they can come up with a compromise, then they say “Okay, they have refused this and they have accepted this. Let me do what they have accepted.” But if there is something they can do which cannot cause problems with the school leaders or have…cause conflicts between them and the school leaders, that one they can do. But then without having a confrontation with the school leaders. (Maximillian)
[2] ... you know when you go to a school, you’ll find a tradition there, you can’t do without it. You can’t be the one to change all of a sudden and start new things. (Gerard)

The above extracts show teacher educators positioning student-teachers as vulnerable because of their ICT intentions during the internship, hence the recommendation to be “wise” [1]. In contrast, school teachers and head-teachers are implicitly positioned as powerful, anti-ICT, and barriers to the good, ICT-infused intentions of the student-teachers who must act wise to avoid conflict. An important aspect of the student-teacher’s vulnerability inherent to student-teachers’ internship context in Rwanda is that the school writes a report and gives them a grade at the end of the internship. A school’s negative report or low grade may lead to the student-teacher redoing the internship.

Therefore, student-teachers are expected to follow existing “tradition” and not try to change it by introducing ICT practices if these are likely to disrupt the school’s tradition [1] [2]. Attempting to do things differently (e.g. using ICTs when they are not welcome) may negatively affect their chances of successfully completing the internship. This would affect their positioning and their teacher educators’ because poor performance in the internship could be due to poor training. This is why teacher educators’ efforts to safeguard their student-teachers’ positioning by recommending them not to introduce new practices in the school [1] [2] is also intended to safeguard their own positioning claims as competent teacher educators.

However, teacher educators acknowledged the limits of seeking to predict student-teachers’ likelihood to use ICTs during the internship based solely on the purported ICT mind-set prevalent in the placement. Maximillian’s own account below shows how some student-teachers adopt an ICT avoidance strategy which he sees as a lack of confidence and creativity with ICTs inspired by their fear of failure.

By the way, some of our interns themselves... don't have that confidence to come up with initiatives to come up with some other projects or some other innovations to say, let me now use this kind of ICT to improve my teaching. Some of them don't want to cause problems to themselves because they say, “If I now start using ICT and in class it fails, I will be blamed. So, let me now do it the way others do it.” (Maximillian)

Maximilian makes an implicit link between student-teachers use of ICTs and their desire to be
positioned in particular ways. His use of direct reporting to express student-teachers’ contemplations shows his understanding of student-teachers’ desire not to be “blamed” for an ICT use that fails. Although these student-teachers’ supposed lack of confidence could be associated with the kind of ICT training received on their teacher education, Maximillian chooses to link it to student-teachers’ desire to conform to existing ICT practices—the way others do it—which also suggests a membership claim, a desire to be accepted by those whose ICT mind-set is questioned. Maximillian’s positioning of student-teachers lacking confidence to innovate with ICTs because of their desire to avoid a negative positioning (being blamed) guarantees that their training—and by extension their teacher educators—cannot be blamed for it. In fact, the implication is that they have the skills—they are well trained—but lack the confidence that they ought to find from within themselves.

An alternative way of interpreting the student-teachers’ purported lack of confidence to use ICTs is through some teacher educators’ own portrayal of classroom ICT use as impractical because of a lack of resources.

I said, there is still the traditional way which in many cases is more practical, the blackboard and the students and the chalk. So, it is still there. And in many instances, it is still more practical than saying, “Okay, students your computers!” Which? “Your mobile phones!” Which? For students in a secondary school, sometimes they are many and it wouldn’t be practical. It wouldn’t be practical. But, the more there is equipment, the more people hear that they must use the internet; the more people know how to use...eh... I think it will come. (Gerard)

As shown in the extract above, the positioning of some teachers/teacher educators as traditional teachers—and the characterisation of non-ICT mediated practices in schools as “traditional”—is not a negative positioning but rather an acknowledgement of an efficient workaround solution to ICT integration challenges and uncertainties. Hence, Gerard seeks to present a positive image of non-technology using teachers (and teacher educators) as capable of overcoming their lack of ICTs. This was also important to him as he personally claimed that he did not use ICTs, and only used his voice and “paper and pencil” in his teaching.

All in all, in this ICT mind-set storyline, teacher educators positioned their student-teachers as ICT-minded, skilled enough teachers whose classroom use of ICTs in the internship depended on other actors with an anti-ICT mind-set. This led to a reciprocal self-positioning
of teacher educators as competent and having fulfilled their training duties—performance contract obligations—towards student-teachers. Thus, teacher educators used their claims about student-teachers’ ICT abilities and placement schools’ supposed anti-ICT mind-set to position themselves as the only ones supporting student-teachers and forewarning them against ICT-related obstructions in schools. Thus, the favourable ICT-related positioning of student-teachers amounted to their teacher educators’ “self-presentations designed to establish favourable social identities” (Tetlock, 1980) in a context where failure to meet socially constructed duties—performance contracts—can lead to dishonour.

6.4 ICT access dictates student-teachers’ ICT skills assessment

For the teacher educators in this study, using ICTs in the classroom was nearly impossible for student-teachers because of the lack of resources in their placement schools. Hence, as a default position, they expected student-teachers not to use ICTs and made no attempt to assess if and how student-teachers used ICTs during the internship. Here, inattention to student-teachers’ ICT practice develops as an appreciation of and adaptation to contextual ICT challenges. In one of the following extracts for example, Maximillian explains how his visits to schools support his view that student-teachers are obstructed by their placement schools’ ICT environment.

[1] For example, there is a school I visited in 2013… in that school… all the lesson plans, they did with a computer …the scheme of work, they did with a computer. Preparing notes, they did it on a computer… This means that an intern who goes there, whether or not willing, he will use ICT. If he or she doesn’t include ICT in his teaching and learning activities, he or she will not manage. But there are some other schools where it is not possible. So, where it is not possible, we try to encourage them to include ICT where possible because it is sometimes not always possible. So, that’s it because they cannot do the impossible. (Maximillian)

[2] Most of the times… when we think of ICT, we think of having a projector, having a computer, Internet and all that. And when they think... “We don’t have all that in the class... “We don’t have this, there is no ICT to use, to be used in this class.” That is what I think, yeah, because they say, “No ICT tools in the class, so no use of ICT.” (Irene)

The above extracts show how teacher educators position student-teachers as skilled in using ICTs but lacking the resources needed to use ICTs in their teaching [1] [2]. In fact when contextual constraints are at play, teacher educators claim the right to remain inattentive to
student-teachers’ (lack of) ICT integration practices if the perceived contextual constraints remain unsolved [1] [2].

Here, teacher educators ascribe to their student-teachers an identity of non-ICT using teachers only because the lack of ICT access obstructs their ICT using potential. This is underscored by the claim that using ICTs in their placement schools amounts to “doing the impossible” [1] which is also echoed by student-teachers who reportedly assert that with “No ICT in class, no ICT use” [2]. The teacher educators making these claims appear to challenge any attempt to blame the lack of ICT usage on student-teachers’ personal factors. Instead, teacher educators pro-actively position their student-teachers favourably as potential technology users as reportedly observed when they are placed in ICT-rich schools [1].

However, once the school context changes, the expectations from student-teachers to use ICTs as a means of ICT integration disappears and student teachers are repositioned as unobligated to use ICTs. Here, there are noteworthy elements in the statements. While Maximilllian positions student-teachers as capable of ICT use once in a ICT-rich environment [1], the remoteness of the one case he uses as an example—a school visited in 2013 while he visited schools every year until the interview was conducted in 2019—suggests the rarity of finding a technology-using teacher during the internship. Secondly, the understanding of what ICTs are as Irene [2] suggests—i.e. computer, projector and internet indicate a limited view of what constitutes ICTs that student-teachers can use to enhance their teaching. While most schools in Rwanda are unlikely to have projectors, they may have other forms of ICTs like radios or speakers that the teacher educator did not consider as ICTs [2]. Thirdly, the way these ICTs are used—preparing notes, lesson plans and schemes of work—all indicate a basic use of ICTs primarily aimed at benefitting the teacher rather than enhancing students’ learning [1].

Kayi-Aydar explains that “In a teacher and student story line, for example, it is the student’s “right to be taught” and the teacher’s “duty to teach,” both of which can be challenged at any time depending on the situation.”(Kayi-Aydar, 2019, p. 10) Similarly, in this ICT access storyline, the school’s duty to provide the necessary ICT equipment precedes the student-teachers’ duty to use them in their teaching. This is the rationale behind Maximillian’s observation that student-teachers “cannot do the impossible” [1] when such a balance of
rights and obligations is not maintained. Accordingly, student-teachers are also presented as expecting their duties to use ICTs in teaching to be waived because of their technologically under-resourced contexts. As Bernadette explains below, when teacher educators raise issues of ICT usage with their student-teachers, they are quickly convinced by the latter of the impossibility of using ICTs in their context, making the lack of access to ICTs an ultimate justification for not using any ICTs.

So, post-observation. So, we discuss with them, we show them “Okay, with this lesson probably you should have prepared your lesson in this way, you should have used ICT. Why? Because of the importance of it in regard with this kind of lesson...all those things. As we give feedback on the part of methodology, on the part of the content, we also give feedback in regard with ICT integration in their lessons. But still, they can show you why they didn’t do so, coming back to the earlier expressed challenges. (Bernadette)

Above, student-teachers are thus positioned as both justified and convincing in their use of ICT challenges to justify their failure to use ICTs. The implication here is that even the teacher educator is justified to overlook their student-teachers’ ICT usage during the internship because of existing challenges. As a result, the assessment of student-teachers’ use of ICTs during the internship is overlooked for those who try to overcome the lack of resources through creative means. As we will see in Chapter 8, even when student-teachers sought to position themselves as classroom ICT users despite the under-resourced context by bringing their personal devices from home, teacher educators failed to acknowledge the student-teachers efforts and claims to be repositioned accordingly.

In fact, the use of ICTs was of little weight in internship assessment rubric, making teacher educators and student-teachers’ focus of how or if ICTs were being used during the internship a triviality.

...the total is out of 100 something. Yeah but the marks will be put out of 40. But that item [technology integration] is out of 5. When it is missing getting a zero does not mean the student has failed to teach. So, it indicates that they don’t use ICT. Only that! (Irene)

...and then
Which means when there is no ICT, the student gets one... many times that I have visited them, they mainly get that one because there is no ICT use, the ICT that we know. (Irene)
Here, the lack of incentives to assess ICT usage is developed through references to assessment practices that show little importance given to ICTs in the assessment rubric. The indication that being given zero on their ICT usage during the teaching internship has no impact on students’ overall assessment outcome makes ICT use inconsequential for both the educators and their student-teachers. Since student-teachers can meet all requirements without using ICTs—even if it is presented as an assessable item on the rubric—it would be hard to convince them that educational ICT usage is a teacher’s duty as suggested in policies. Thus, neither teacher educators nor their student-teachers had incentives to pay attention to the use ICTs, especially when their under-resourced context provided verifiable, passe-partout justification: no ICTs.

Consequently, Irene presented not assessing student-teachers’ use of ICTs during the internship as an expression of understanding and empathy. She explains her empathetic approach to evaluating their ICT usage during the internship as follows:

> As they are teachers... they will be teaching secondary school students who are not allowed to have mobile phones, they don’t have... yes they have computers but the computers... most of the schools use computers for the ICT, computer skills, not English. For them to use ICT it will be like documentiong, when they are preparing the lessons but not in class. (Irene)

It is clear that Irene implicitly criticises the existing countrywide ban on secondary school students’ use of mobile phones—devices that are more accessible to teachers and students—and asserts impossibility of achieving ICT integration in such conditions. She starts by positioning student-teachers as “teachers,” hence effectively putting them on the same pedestal with any qualified professional who can use ICTs in their teaching. Then, she presents student-teachers as equally affected by policy decisions about ICTs over which they have no control like “teaching students who are not allowed to have mobile phones.” She then uses this claim to legitimate not assessing student-teachers’ use of ICTs during the internship and thereby self-positioning as context-aware and compassionate towards her student-teachers.

Overall, positions within this storyline give different practitioners (teacher educators, student-teachers, schoolteachers) the right to forego their educational ICT duties and obligations because they have no control over perceived ICT access challenges. Hence, they show that the context with its lack of resources and its policies restricting students’ use of
accessible ICTs—like the ban on mobile phones in class—warrant paying less attention to ICTs in student-teachers’ training and assessment. This perspective brings an overall positive teacher educators’ positioning and identity because it ensures that their positions and rights are not questioned based on their trainees’ ICT practices or performance. In fact, in an attempt to reinforce teacher educators’ self-distancing from student-teachers’ failure to use ICTs in the classroom, Irene appealed to sarcasm as shown in the extract below.

Maybe what should be done is awareness of how to use, to integrate ICT in teaching in secondary schools without the learners having the devices, the resources, ICT resources. I believe all teachers have all they need to know. (Irene)

The teacher educator sarcastically proposes a solution of ICT integration without having access to ICTs, as though to ascertain the untenable position in which student-teachers and teacher educators find themselves regarding ICTs. Yet, even with this sarcasm, Irene positions teachers as already skilled or knowledgeable enough to integrate ICTs: “teachers have all they need to know.” With this claim, she discards any potential association of teachers’ potential to use ICTs and a lack of ICT skills. The implied positioning of teachers as technologically trained and skilled also allows the positioning of teacher educators as successful in their duties to train their student-teachers into becoming educational ICT users.

6.5 Student-teachers’ ICT skills and ICT training

Student-teachers’ ICT skills and abilities were generally seen as independent of the ICT training received on the programme. Instead, other factors were implicitly credited with the student-teachers perceived ICT competences. Teacher educators highlighted their confidence in the ICT skills of their student-teachers by pointing to their improved ICT access in comparison with previous cohorts of student-teachers on the language teacher education programme. This is shown in the extracts below where teacher educators express views on their student-teachers’ ICT skills.

[1] They quite… they do. Some of them are familiar with it, even though that is the starting point. Maybe sometimes they struggle with the…the aspect, but you know students… they were given laptops under the sponsorship of the Government, so they are able, they are able now to type the assignments, even send… send them by email online and whatever we advise. (James)

[2] What I said is that it’s visible that they’re trying and they are different from the time for example from the time you were here [laughs] at the University in 2005, 6.
The people were just starting. And what is obvious is that now the students at the University are more prone, let’s say, or are more inclined to use the internet. (Gerard)

[3] I believe they have some skills in ICT as they are this new generation, they use ICT very much. (Irene)

[4] … these days when we are teaching, there is an impression that they don’t bring pens and papers, they have their smartphones with them. They have access to the materials. They have some content to read. They read through their phones. (Irene)

The narratives of student-teachers ICT skills (as in the examples above) cast student-teachers as technologically skilled in comparison to previous generations of student-teachers [1] [2]. Hints that student-teachers’ ICT skills were generational enabled the positioning of younger student-teachers as tech-savvy regardless of the ICT training received on the programme [3]. In fact, teacher educators do not credit the teacher education programme for their student-teachers’ ICT abilities. Instead, they reference their access to personal laptops and smartphones [1] [4] and being a later generation than when ICTs were first introduced [2] [3]. Being a graduate of this same teacher education programme in the late-2000s, I—the researcher—am explicitly categorised among the older generation with limited ICT usage to reinforce this generational positioning in which the younger, more recent cohorts are positioned as more technology-savvy than previous generations [2] [3]. Relatedly, the teacher educators quoted above view student-teachers as having forsaken traditional tools (pens, paper) and replaced them with ICT tools (smartphones, Internet) [4], a sign that they are the technologically connected “new generation” [3].

Although the positioning of student-teachers as having some ICT skills is based on a belief founded in their youthfulness [1] [3] rather than the quality of ICT training received, this student-teachers’ favourable positioning also allows teacher educators to favourably position themselves. For example, James claims that the limited ICT use student-teachers engage in (e.g. typing assignments, emailing) is an enactment of teacher educators’ advice on what to do with ICTs [1].

While teacher educators in this study often made a blanket generational positioning of their student-teachers, they also acknowledged limits to this positioning of student-teachers. Still there were differences in their appreciation of student-teachers’ readiness to use ICTs in teaching. The following extracts show how Maximillian, Bernadette and Gerard expressed
differences in their appreciation of the ICT training student-teachers had received and their readiness for educational ICT use.

[1] ... in terms of ICT, there might be some students who or some would be teachers who are ready to... to use ICT in the sense that they go to the Internet ....it is different from our time... the students are used to the internet. I have observed that. Even when they use their mobile phones, they access the internet, but from there to say that they will be using the internet in teaching English, it will depend. (Gerard)

[2] if they were trained in an environment where ICT resources are, they would be also effectively teachers integrating ICT in their lesson where the environment is well equipped with ICT. So, they may be in an environment, in good schools where there are facilities as far as ICT is concerned, but because during their training also the exposure to ICT environment was not enough, they may not do so... if they are trained where there is not enough exposure, there is no way to expect them to teach using ICT .... (Bernadette)

[3] And when we go there, they say “Please, your students, we know that they have the skills, they have their laptops, they have eh...very good initiatives, but look, our school does not have electricity. We don't have even a generator. We don't have...we have computers, but they are kept somewhere. You see? Can you please advocate?” (Maximillian)

While Gerard positions student-teachers as more “ready to use ICTs” and potentially more technologically skilled than himself (“it is different from our time”), this positioning is not an acknowledgement of student-teachers’ abilities to use ICTs in their teaching. Gerard echoes what researchers have noted that teachers’ digital competence involves more than the ability to use tools (McGarr & McDonagh, 2021) His refusal to position student-teachers as capable educational ICT users signals the limitations of anticipating student-teachers’ ICT skills through generational categorisations that overlook the quality of their ICT training. In fact, Bernadette takes it further by establishing a link between student-teachers ability to use ICTs and the quality of their training [2]. Here, she implicitly questions views shared by other teacher educators that student-teachers are only unable to use ICTs because of a lack of access to resources by pointing out that student-teachers’ inability to use ICTs results from not being properly trained to use ICT: “you know ...you give what you have. “ (Bernadette). This statement positions those delivering the training (including the teacher educator herself) as potentially ineffective in their ICT provision to student-teachers.

However, this view is not shared by Maximillian who underscores that student-teachers’ ICT
abilities are acknowledged not only by teacher educators—who have self-positioning interest in doing so—but also by placement schools where student-teachers do their internships [3]. Maximillian’s claim implicitly positions teacher educators as successful in their work of preparing technology-using teachers. He uses the direct speech to indicate that teacher educators are praised for this [3], unlike Bernadette who expresses her alternative positioning of student-teachers and teacher educators through a use of conditionals [2]. Still, neither Bernadette nor Maximillian’s claims are based on actual practices. For the former, the positioning of student-teachers as unlikely to use ICTs because of their poor ICT training is hypothetical while Maximillian’s favourable positioning of student-teachers is based on what schools “know,” which implies an assumptive attribution of ICT skills and abilities to student-teachers.

Yet, Irene went even further in questioning her student-teachers’ ICT training:

Maybe there is a need of training for them to know “What does it mean using ICT, integrating [ICT] in education?” (Irene)

The positioning of student-teachers as unaware of what it means to integrate ICT in their teaching puts into question the very ICT training of the student-teachers, especially since one of the general course units offered on the programme focuses on the integration of ICT in education. On first consideration, this positioning of student-teachers could suggest that Irene would reciprocally be positioned as ineffective in her duty to train competent, ICT using-teachers. Bernadette’s observation that ICT use “it is still an area to be developed even by not only students but even by we, teachers” may lead towards this interpretation. However, since Bernadette or Irene did not consider student-teachers’ ICT training to be part of their duties, it can be inferred that they openly questioned student-teachers’ ICT training because they perceived it to fall out of their personal duties and would therefore not be blamed for student-teachers’ ICT skills shortcomings.

In contrast, Maximillian had more to lose by unfavourably positioning his student-teachers based on their ICT abilities because he already positioned himself as their ICT role model who was always telling them how and why to use ICTs in their language teaching. Therefore, his student-teachers’ failures would have also meant his own. Thus, he claimed that student-teachers who lacked the necessary ICT skills had joined the programme without meeting ICT pre-requisites.
We have some students who studied in 12-year basic education, schools with limited facilities, and we have other students who studied in schools of excellence. So, in schools of excellence you'll find that students have, or the school has a computer lab, enough computers skilled, teachers, but these schools called 12-year basic education, very few of them have those facilities. So, when they come here also, you can see that there is discrepancy among the students. (*Maximillian*)

Here, Maximilllian presents student-teachers’ difficulty in integrating ICTs as a problem of schools: those where they studied before entering teacher education and those where they would do the internship. The statement thus blames lower level schools where student-teachers started their education and are likely to work as teachers. This narrative insulates the teacher educator from any criticism for individual student-teachers’ failure to acquire the expected ICT skills simply because they did not start at the expected level or did their internship in under-resourced schools.

It is noteworthy that Maximilian contrasts student-teachers from schools of lower quality education (12-year basic education) to those from “schools of excellence”, which are one or two schools in each of the 30 districts in the country identified and furnished with “appropriate infrastructure, equipment, materials and human resources” to serve as models for other schools in those districts (*The New Times*, 2011). Schools of excellence in Rwanda “attract more qualified teachers and provide a higher-quality educational experience for young people.” (T. P. Williams, 2015, p. 10) Very few student-teachers on the English language teacher education programme are likely to come from schools of excellence given that these schools mainly promote STEM subjects. Thus, Maximillian’s reference to the disparities between student-teachers from those two types of schools is also a disclaimer that highlights the limits of teacher educators’ efforts in turning their student-teachers into educational ICT users.

Overall, a common thread between the above apparently contradictory ICT-related positioning of student-teachers is that they all ensured the teacher educator a favourable position. For example, Bernadette, Gerard, and Irene specifically indicated that student-teachers’ ICT training was not something they either engaged in or believed to be part of their teacher education duties. In fact, Gerard claimed to use the “traditional” method of teaching (by which he meant not using ICTs) because it was more practical. He also suggested that because of his student-teachers’ lack of ICT access and training, their teaching was also
“traditional”: “teaching, interacting with the kids, etc. it is the usual way... the traditional, let’s say.” (Gerard). Therefore, these teacher educators did not perceive that criticising their student-teachers’ (poor) ICT training and skills or unfavourably positioning them on this regard would reciprocally affect the teacher educators’ own positioning. In fact, teacher educators’ discussion of their student-teachers’ ICT training and their potential (lack of) ICT skills appeared to be more about why teacher educators were not accountable for the student-teachers’ potential inability to use ICTs than how teacher educators supported them in ICT skills development. They thus moved between motives from a lack of resources to a lack of pre-requisite training or a lack of ICT training by other teacher educators—but not themselves—as justification for positioning students as unlikely to use ICTs in their teaching.

6.6 Conclusion

As shown in this chapter, student-teachers are seen through the lenses of their ICT competences and how they expected to develop and apply those competences. Student-teachers’ positioning by teacher educators points to their potential ability (or lack thereof) to use ICTs and how their teacher educators support them in this regard. The chapter highlights often contradictory positions and identities that teacher educators assign to their student-teachers. I have shown in the chapter how the positioning of student-teachers appears to be driven by their teacher educators’ intention to avoid any blame for the former’s poor ICT skills. Thus, teacher educators favourably and unfavourably positioned their student-teachers and other teacher educators in order to secure for themselves favourable positions in the different storylines. This can be seen as the teacher educators’ implicit acknowledgement of their failure to train technologically student-teachers in accordance with expectations. Alternatively, it can be an indication of internalised assumptions of what is “right” to say regarding ICTs despite how they perceived themselves and others in connection with the perceived social and professional expectations of teachers (Martel, 2016).

In the last two chapters, I have focused on context, highlighting how educational ICT policies (chapter 5) and teacher educators (this chapter) position student-teachers in ways that assign them and shape the identities available to them to negotiate. In the next two chapters, I focus on how individual student-teachers negotiate positions and identities within these contextual realities and how negotiated digital teacher identities have been influenced by teacher
educators through different forms of interactions (Borko, 2004). In Chapter 7, I explore how Dominic who self-identified as “the best” ICT-using teacher negotiated this digital teacher identity. In chapter 8, I show how Denyse’s positioning during her training and internship experiences affected her self-identification as demotivated to use ICTs.

7.1 Introducing Dominic

This chapter discusses ICT-storylines, positions, rights, and duties present in one of the participants’—Dominic—three interviews. I use these elements to analyse and understand Dominic’s digital teacher identity as a technology-using teacher. At the time of data collection, Dominic was a 26-year-old student-teacher majoring in English. He was doing a teaching internship that concluded his preservice teacher training. Besides growing up having a computer at home and using it to develop practical ICT skills, Dominic had also been engaging in professional development by taking MOOCs, workshops and even Chinese language classes at the Confucius Institute in Kigali.

Dominic’s placement school was a TVET (Technical and Vocational Education and Training) school in Kigali that offered different programmes in accounting, computing and engineering fields. Although he was officially an intern, he was teaching 18 hours a week, way beyond the 8 he claimed was recommended by the University. This was because his placement school used him as an unpaid replacement for a teacher who had left the institution before he started the internship. His classes had on average 25-35 students. His assigned “mentor” who also looked after other interns (10 in total) was a member of the school’s administration and was teaching language classes, though not English.

Technology-wise, Dominic used his personal laptop in class on a regular basis. He estimated that half the students in his classes owned personal laptops. This was an outcome of the school’s policy encouraging students and teachers to buy their own laptops under a scheme that saw the school act as a guarantor for them.

Discussions in this chapter—organised into storylines—are based on three interviews conducted at the beginning, middle and end of Dominic’s internship. Extracts are tagged to indicate which interview they came from, using DM for Dominic and a number, i.e. DM-1, DM-2, DM-3 for first, second and third interviews, respectively.
7.2 ICT as a Classroom disruption

The ICT as a disruption storyline consists of a collection of sub-storylines that represent the use of ICTs in the classroom as potentially disrupting teachers’ planned activities and negatively impacting students’ learning. Dominic used this storyline to explain and justify decisions for not using or restricting ICT usage in his teaching but also in the school and the education system in general. This storyline presents ICT as a disruption to both the teachers and students.

Dominic’s accounts resurfaced different perspectives of this storyline in consistence with his changing identity from student to classroom teacher. These are explored below.

7.2.1. Disruptive student-teachers

Dominic assumed positions both as a teacher potentially disrupted by classroom ICT use but also as a student formerly using ICTs in potentially disruptive ways. He showed that his perception of ICT disrupting classrooms started on the teacher education programme with his teacher educators instituting restrictions on student-teachers’ use of personal ICTs during lectures. He explained...

...when we were in class, they didn't allow us to use computers ... because he or she feared that we may waste our time. For example, playing movies, watching some news on Google, searching different things from what he or she was teaching, yeah. So, in the class they did not allow to use computers. (DM-1)

Dominic used the expression ‘wasting time’ to describe his and his classmates’ purported disruptive use of ICTs while in the classroom. Their use of personal devices was thus banned because the teacher educator wanted to protect student-teachers from wasting their time. Yet, this ban was not justified by student-teachers being disruptive with computers but simply because the teacher educators “feared” a disruption. This led to an implied positioning of student-teachers as disruptive with ICTs mainly because their ICT use were hypothesised to be ludic rather than academic (watching movies, watching news). Using direct quotes, Dominic recalled teacher educators banning ICTs...

...because “somehow you're disturbing me... If I'm teaching, you're not listening. You are busy watching movies, you are busy typing different things from what I'm teaching.” (DM-1)
The accounts in this extract show that teacher educators blamed student-teachers for abusing ICTs and thus disrupting classroom activities. The ban was therefore cast not to be against the technologies themselves but against the perceived student-teachers’ abuse and misuse of ICTs in the classroom. Thus, teacher educators’ forbiddance of ICT use during lectures was construed as safeguarding student-teachers learning interests threatened by their disruptive ICT usage. Dominic accepted both this justification and the resulting positioning of some student-teachers as culpable of the alleged disruptions.

You know, we as students, when a teacher is teaching... some of us, they are following, they were following and others are not following, yeah. Actually, there were some of us who were not following because... not because of the laptops but maybe because, for example, one student may open the laptop and do different things from what we are doing because for example he has other tasks different completely from what the teacher is teaching, yeah, and try to.....do that task instead of following. (DM-1)

In this extract, Dominic’s use of inclusive expressions such as “some of us who were not following” implied an acceptance of the positioning as distracted by ICTs, thereby approving the teachers’ motives to ban student-teachers form classroom ICT use. However, while accepting the positioning as distracted while using ICTs in the classroom, Dominic rejected the generalisation of this positioning to everyone using laptops in the classroom or imputing the assumed distraction on the laptops themselves. His suggestion that the distraction was due to “tasks” implied to be assigned by other teacher educators shifted the blame from student-teachers and technologies to the teacher educators who were assigning these tasks, thereby forcing students to work even during lectures.

His explanation indicates that he and his teacher educators saw the purported disruption from two competing moral orders with “contestable rights and duties” (McVee et al., 2021, p. 3) where both Dominic and the teacher educators appear to battle for the right to decide what constitutes and who is responsible for disruptive classroom ICT use. Here, teacher educators are seen as acting in a moral order where they claim rights to ban ICTs because student-teachers use them in ludic, disruptive ways. On the contrary, Dominic places student-teachers in a moral order where unapproved classroom ICT use is not disruptive but rather a sign that they were overloaded with “tasks”. Locating student-teachers in this moral order warranted Dominic’s rejection of the positioning as disruptive. Instead, it enabled him to
claim the right and ability to multitask with ICTs. This is illustrated below where Dominic challenged the teacher educators’ a priori characterisation of student teachers' use of ICTs during lecturers as a disturbance.

... it was not the problem to use a computer while the teacher was teaching because like eighty per cent.... they would use their machines while they were following the teacher. (DM-1)

Dominic gives a reinterpretation of the ICT as a disruption storyline whereby what the teacher educators saw as a disruption is cast as multitasking by the student-teacher. Dominic’s positioning of himself and colleagues as multitasking with ICTs rather than being distracted alludes to learners’ enhanced abilities to multitask with technology while the teacher educators’ injunctions against ICT use during lectures is imputable to a belief in a negative impact of ICT multitasking on students’ learning, see (Deng, 2017; Junco, 2012; Junco & Cotten, 2012).

7.2.2 Re-interpreting ICT as a disruption

Interestingly, Dominic’s accounts of personal approaches to students’ ICT uses reveal an interpretation of students’ potential disruptive ICT use in the same way as his teacher educators. While teaching during the internship, he was apprehensive that his students’ use of ICTs could unsettle the classroom harmony he wanted to achieve. For example, although his placement school already had a policy preventing students from using the school’s Wi-Fi before he joined it, he defended the policy with preconceived assumptions that students’ access to Wi-Fi would be disruptive in his class.

... You see... if you do go with that network, yes? That Wi-Fi and give it to them... I think they cannot follow you because you have given the password of the Wi-Fi and the... they use it to... in their own business instead of following you while you are teaching. (DM-2)

This positioning of students as potentially inattentive to the teacher because of their access to the school Wi-Fi indicates that he condoned the ban on students’ access to the school Wi-Fi. He engaged in a malignant positioning of his students, casting them as untrustworthy with the Wi-Fi that they did not yet have access to. Although the Wi-Fi restrictions were partly motivated by the institution’s financial circumstances, Dominic discussed them exclusively as
safeguards against students’ distraction and demotivation. This suggests his inclination to limit students’ access to Wi-Fi was independent of resources availability.

Besides his mistrust of students with Wi-Fi, Dominic also acted to limit students taking advantage of their personal devices. He required students with laptops to make handwritten copies of the notes he wrote for the rest of the class on the board, even if he always gave the digital copies to these students. He explained this below.

[1] ... I oblige them [students with personal laptops] to take those soft copies and then write them in their notebooks because first of all I have explained them, those soft copies, and then they will use it in revising their courses, but in addition they have to write them in their notebooks because anytime that softcopy can be damaged. (DM-2)

[2] ...so I ask them also to copy those softcopies in their notebooks because that cause problems. So, the reason why I do that is not because they can be stolen or damaged, I want to show them that they are equal in the class. No one is above. ...if I let those who don’t have laptops only to copy the soft copies in their notebooks... I think those who don’t have laptops could steal those laptops so as to get also those soft copies. So, I ask them all to copy in their notebooks even though they do have it in their laptops. (DM-2)

As shown above, Dominic used practical risks associated with managing data on digital devices as the reason he wanted his students to do the double work of copying notes he had already given them in a digital format [1]. Being in a position of authority, he cast himself as futureproofing his students from risks of losing access to the materials. However, he quickly reneged on this view that students would lose or damage their digital notes [2]. He moved to view forcing those who already had digital copies to also make handwritten ones as a matter of equality and equal treatment of students in the classroom [2]. However, this levelling of students with and those without personal devices undermined the value of possessing a personal device in the classroom, which he advocated for. Dominic’s positioning of some of his students without laptops as potential purloiners of their colleagues’ devices—and thus those with laptops as potential victims—also amounted to a malignant positioning of technologically necessitous students.

While Dominic claimed ownership of this policy and its implementation during the interview and indicated that it belonged in his personal moral order, as shown through the repeated
use of “I” (Van Langenhove, 2017), he revealed during a post-interview discussion that the school required him to check each student’s notebooks and award “notetaking grades” to students who had all the notes therein. Thus, like the Wi-Fi policy, Dominic not only justified the schools’ required practices regarding ICTs, he also formulated personal reasons for enforcing such policies in his classes and integrated them in his personal moral order, making such restrictions validated both within his personal and institutional moral orders.

However, despite this initial attempt to align his personal and institutional moral orders regarding restricting students’ access and use of Wi-Fi and other ICTs in the classroom, he later admitted changing his perspective and repositioned himself as an advocate for students’ classroom ICT use as shown in the following extracts.

[1] ...before I thought, if we do have computers in class, I was thinking it is not good. Because, I do remember I have said if the students have laptops in class, maybe they can use them to play videos, games, play music while I am in class. But after, I have seen that it is not like that because you can use it together with the students without playing those video games because you project there. You have the chance of facing every student. So, I think he or she cannot have that time of playing video games while he or she is following you... (DM-3)

[2] ... what I think about using ICT when all students have laptops. I said, I do remember, I said that it is not good because it would be disturbing them. But after doing that interview, I have been thinking about that issue. So, I have proven that if they use them, there is no problem because I have tried, yes, as I said I have tried to check if it can really disturb them but I see no problem. Yes, it was my view before, but I have checked well, I have uhm researched it. (DM-3)

The above extracts show Dominic recasting the ICT as a disruption storyline in a different moral order in which students have rights to use ICTs in the classroom. He positioned himself as a changed teacher with new approaches and understanding of the disruptive potential of ICTs in the classroom. He emphasised his change across time by using time-markers (before, after) to signal his awareness on the transformations that he underwent. Students were repositioned as too busy to be distracted while using ICTs in the classroom [1] and the risk of them being distracted was reassessed and “proven” inexistent under such circumstances [2]. Dominic also repositioned himself as more trusting of his students that he saw “no problem”
resulting from students’ use of their laptops in the classroom although this trust rested on them being busy.

Dominic implicitly self-positioned as a reflective teacher willing to challenge his ICT views until he settled for “researched” and “proven” [2] conclusions that his students would not succumb to ICT distraction from using their laptops in the classroom. Lastly, Dominic suggested that his participation in this study—the interview specifically—led him to research his views. This positioned the researcher as an influence on his ICT practices. However, his decision to abandon his earlier views and reposition himself based on what he had “researched” shows that he was proactive and therefore not solely acting under the influence of this study.

In this ICT as a disruption storyline, Dominic held positions that reflected his changing digital teacher identity from student-teacher to teaching intern by means of an understanding garnered from his ICT-using experience. This led to an evolving interpretation of issues of ICT use, access and its impact in the classroom. An important finding here is that Dominic used the ICT as a disruption to serve his interests. First he rejected the potential of ICT as a disruption because he saw it as unfairly casting him into an unfavourable position. However, he nevertheless assigned unfavourable positions in this storyline to his students when he felt his classroom authority threatened. Moreover, he used the same storyline to prove that he was “researching” and “testing” his views as a reflective practitioner, but also that he had actually used ICTs to test—and eventually disprove—his teacher educators’ and his own early misconceptions of ICTs and their disruptive potential.

7.2.3 Teachers’ ICT use prevents students’ disturbance

In his discussions of ICTs’ relevance in his teaching, Dominic developed pro-ICT arguments around his desire to help students in the learning process and skills developing which he believed they needed to succeed in life. He positioned himself as a champion of students’ needs and cast himself as learner-centric and future-oriented in his teaching that aimed at using ICTs.

... So, my target is to let my students not to remain how they were before I entered the class. So, I do want to give them some chance in their eh in their life. (DM-2)
Dominic positioned himself as a benefactor teacher using his teaching duties to “give students a chance in life”. There is a prevalence of a cultural moral order wherein the young (i.e. Dominic’s students) have the right to be shepherded through life by the elder (Dominic) who is more knowledgeable about the future. This is characteristic of the Rwandan society where “the young look to the elders for instruction and guidance” (Adekunle, 2007, p. 116). Accordingly, Dominic considered that the use of ICTs enabled him to “help” his students by having longer conversations with them. Specifically, he assumed that using projectors—a teacher-centric tool—in his class would decrease the time he spent writing on the board and increase the time spent explaining content, which he considered to have a positive incidence on students’ lives.

So, I think if you are using ICT, you have enough time to converse with them, yes, to move around the class, no problem.

(...and later clarified)
... Because uhm for a long time you are facing them. You do not go and come back. Because to write on the board, you go and come back, go and come back, it is sometimes a disturbance there. (DM-3)

The expectation that ICTs would allow more time allocated to listening and talking to students makes technology important, especially at a time when the country is pushing for learner-centred pedagogy. The above extract indicates that Dominic’s motivation to use ICTs in the class was not primarily to benefit students and therefore foster actual learner-centred pedagogy but to enhance the teacher’s (i.e. Dominic’s) control of the class by increasing his mobility within the room. In fact, the use of projectors was perceived to allow him to monitor students in ways that he failed to do while writing on the board. While focussing on the writing on the board, Dominic was unable to monitor everything students were doing and construed this as a “disturbance” that which made the use of projectors an ideal solution.

Dominic’s perception of the “disturbance” and his choice of an ideal ICT artefact—in this case projectors—are crucial to understanding his implicit self-positioning as well as the moral order from which he sees ICT as a disturbance (McVee et al., 2021) The examples of technology he uses (projectors and the chalkboard) are both one-to-many tools used in the classroom whereby the teacher—the perceived knowledge authority—displays information to students. Therefore, the desired use of projectors itself is a claim to and an assertion of a
position of authority in the classroom that the writing on the board was perceived to erode. These two artefacts are located in different moral orders. The board suggests a moral order where the teacher has limited control of the class and lacks right and opportunity to display their ability to use ICTs. On the contrary, the projector implies a technology moral order in which the teacher’s classroom control and authority are established, but also one in which the teacher has the right to claim positions related to ICT skills and abilities. Dominic’s use of the inclusive pronoun “you” below indicate that he did not claim sole subscription to this technology moral order which guarantees the teacher’s right to “control” every learner, the decisive push for the use of projectors.

So, you see, if you are projecting for example, every student is able to look at the slides there. It is different from when you are writing on the blackboard. If you are there with your projector, I think you can control every learner if he or she is following what you are telling him. But if you are writing on the board, maybe sometimes they can disturb you because you have turned your back. (DM-3)

Dominic’s expressed desire to use ICTs for effective management of his class is coupled with the positioning of students as disruptive individuals who may distract “you”, once again a subtle choice of pronoun that seeks to depersonalise the observation and generalise it to any teacher writing on the board. The choice of tense is also indicative of this as he did not use his personal experience but rather made it as an atemporal statement that is true across time if the conditions—writing on the board—are met.

7.3 ICT challenges and practice

This section discusses the ICT challenges storyline from Dominic’s perspective. It focuses on his statements about access to resources and skills to use them and the ongoing positioning in those statements. The storylines highlight effects of not having access to ICTs on one’s skills, abilities, ICT knowledge and overall development. This is shown throughout the different positions that Dominic availed, claimed or assigned within the storylines.

7.3.1 Age guarantees ICT access

Dominic developed the “age and ICT access” storyline, showing that age was a critical factor in gaining access to ICT resources at home and in school as well as being appreciated as a skilled ICT user. Age/generation also legitimised ICT restrictions on individuals. For instance,
he considered his age as a key factor in his parents’ decision to buy him a personal computer after he became older, unlike when he was younger and restricted from touching his parents’ devices. In the following extract, Dominic showed how his increasing age gave him ICT access opportunities.

You see, as Rwandans, the ICT is not at a high level. So, in my childhood I did get in contact with it from my parents by using radio and telephone but not often. Only sometimes... but because I was very young, they did not allow me to use it... to use them: radio and telephone. Yeah. When I became uhm... a bit older, they bought some machine for me. (DM-1)

While Dominic was reportedly exposed to some ICTs in his childhood, he claimed being forbidden to use them because of his age. He considered this restriction to symbolise a national reality that affected all Rwandans because of the level of ICT in the country rather than being a family policy, thereby locating these restrictions within a national technological moral order. Despite placing a great importance on the low level of ICTs in Rwanda (note the fronting of this idea in the extract), Dominic interpreted both his parents’ restrictions on his use of their ICTs and the later device purchased as age-related decisions, thereby implying he was positioned as too young to use ICTs in the former instance and old enough to deserve a personal device in the latter.

Dominic’s perceived positioning as too young to be allowed access to ICTs also continued in his educational experiences. While he acknowledged that his secondary schools did not have enough resources, he nevertheless observed that students were denied access because of their young age.

... the headmaster, they used them [computers] but we as students, we never used them because...they thought that we were still young. So, they did not allow us to use them. (DM-1)

Here, Dominic reiterated how school officials could use ICTs, implicitly because he positioned them as older while him and his colleagues “as students” were “still young” to use ICTs. Although Dominic’s word choices and their order of appearance in the above extract suggested a hierarchical positioning of the “headmaster,” the teachers (“they”) and “us as students,” a difference in status that could equally serve as a justification for the restricted/limited access to ICTs for students, he chose his positioning as “young” as the
vantage point from which to interpret his lack of access.

Dominic’s views on age and ICT access can be understood within a Rwandan educational moral order which denies primary and secondary students’ ICT access rights in school. In fact, Dominic made the above claims in early 2019, roughly a year after age-related characteristics regarding ICT access were used to justify a national ban on mobile phones in schools (MINEDUC, 2018; Mpirwa, 2018). By this order, Rwandan primary and secondary school students—who are construed as young and vulnerable—are “prohibited from using a mobile telephone at school or during extra curricula activities” (MINEDUC, 2018, article 3, p.33). Notwithstanding the fact that Dominic’s age-related claims could be simple attempts to make sense of a lack of ICT access in a technologically under-resourced context, the positioning and perceived denial of rights to use ICTs because of age is also connected to the generational positioning (see Chapter 6) that teacher educators engaged in by positioning student-teachers as “young” and therefore skilled with ICTs.

7.3.2 ICT access is subject-dependent

From the start of the internship, Dominic positioned himself as unfairly restricted from accessing or using some ICT tools in the school because of the subject he taught. Of importance in his discourse were the projectors which he desired to use in his classes but could not get access to because he was not teaching computer-related subjects as highlighted in the following extracts.

[1] Their projectors are not enough. So, because we do have different options, especially there are computer applications and computer software development. So, they often use those projectors. And even those tourists those in Tourism... they do have tourism they mostly use those projectors instead of language teachers using them. So, they keep them. (DM-1)

[2] .... they think that my subject is English, so they don’t think I have to use those [ICT] materials because they think to use books... it is enough. So, I don’t have a big participation in ICT or in using it in that school. (DM-1)

The above extracts show Dominic categorising teachers within his school among those who can and cannot access the two projectors available in the school [1]. Being a teacher of English, he positioned himself among those who were denied the right to use projectors. He
positioned other teachers as unwilling to share the resources because “they keep them.” He also expressed a feeling of unfairness as he compared his limited access to that of other teachers whom he thought were less deserving of projectors than him. He conceived a hierarchical categorisation in which he implicitly acknowledged not being the top priority in ICT access but still ahead of teachers in the tourism option whom he dismissively referred to as “those tourists.” With this categorising and positioning move, Dominic claimed that he was denied certain ICT access rights while others were undeservingly granted access to projectors.

Dominic’s claim that his lack of access to some of the ICT tools he needed was because others “think” he need not use ICTs but only books distanced him from other teachers whom he positioned as misinformed about the relevance of ICTs in teaching English while . By the same token, through this claim, he implicitly positioned himself as ICT-friendly and different. His later claim to “not having a big participation in ICT” reinforced his self-distancing and categorisation as different and therefore excluded from ICT practices happening in his placement school.

Yet, as the internship progressed and his participation in the study continued, he started repositioning himself as a solution-seeker capable of overcoming his ICT access challenges by “borrowing” the projectors, as shown in the extract below.

[1] ... the problem is still there because you know the projectors are very few. I tried my best to ask them to lend me, but the problem is still there because, yeah, we do have two. Only two! So, we can’t... they are not enough for us teachers. (DM-2)

[2] ...I have told you before that it is not easy to use ICT there. But I have used it, not many times but I think like two times. I’ve only tried to use a projector, computer, the lab, yes, I have tried. So, I have seen it is very good, it is uhm more interesting, not only me but also to the students. The lesson to me, it is it has speed to complete it... my uhm objective. Also, the learners, are more participating when you use when you use technology. I have seen, I have tried to look at that. (DM-3)

Dominic’s search for projectors led him to accept that the projectors “are not enough for teachers.” His initial perception that other teachers denied him access to projectors because they thought teaching English did not need ICTs was superseded by the acknowledgement that the school was technologically under-resourced. This admission repositioned him as equally obstructed from ICT access as other teachers and therefore allowed him to categorise
himself as one of many teachers unable to access ICTs, regardless of their subjects, a category he had initially excluded himself from. Thus, despite his conviction that using ICTs would benefit his students (“I have seen it is very good”), he conceded that the school could not afford him the ICTs he needed. He thus explored ways of overcoming his ICT access challenges—thereby positioning himself as a problem solver. In the following extract for example, Dominic brought together his desire to use ICTs upon starting the internship (a reference that shows he prepositioned himself as an ICT-using teacher even before the internship), his discussions of ICTs in this study (hence positioning the researcher as an influence on his ICT activities), and his attempts to enact his ICT plans and desires in the classroom—thereby claiming to have used ICTs during the internship despite challenges.

...I was wishing to use ICT but the problem of not having enough materials, it was a problem there. But after all, I have tried twice, I think, to use a projector. Because you asked me “If you do have a chance of having access to those ICT materials, will you use them?” I thought that if I do have that chance, I will use it. So, I tried my best to find those materials, I asked the mentor to help me and I got it. And I have seen it is very good because it has helped me to reach or to uhm compare what is the difference between teaching without using uhm for example, a projector and laptop or teaching with it, with them. So, I have seen there is a big difference there. Yeah, because if you do teach with those materials, your target can be achieved quickly and correctly. (DM-3)

The above extract shows Dominic affirming himself as an ICT user. His attempt to access and use projectors in the classroom was presented as a direct response to a question asked in the first interview in which he complained about having no access to projectors in his placement school. The desire to reposition himself and reject a perceived unfavourable positioning by the researcher decided him to use ICTs: “because you asked me...” Although his intention to use projectors was initially to challenge a perceived positioning by the researcher, he also used his limited use of projectors to confirm his belief that teaching with ICTs helps achieve the target “quickly and correctly” as opposed to teaching without it.

Nevertheless, it can be argued that the pedagogical value of ICTs was less important to him as a teacher. His move between blaming colleagues for limiting his access to projectors and crediting his decisive act to acquire projectors onto a felt unfavourably positioning by the researcher illustrate a personal investment in self-presentation (Kayi-Aydar, 2019) as a skilled
ICT using teacher. Thus, the various positions he claims in this storyline (obstructed, supported, unfavourably positioned by the researcher, etc.) illustrate his effort to negotiate an identity that is acceptable within his teaching context, but also one that convinces the researcher. The self-presentation move is particularly important here because he had already claimed he was denied access to projectors because he taught English.

7.3.3. Advocacy for personal devices as a solution to ICT access challenges

This storyline focuses on the idea that personal devices would be the solution to ICT access issues. In this storyline, ownership of personal devices (e.g. a laptop) serves as an artefact for claiming or rejecting certain positions for teachers.

In his placement school, Dominic acted and implicitly positioned himself as an ICT advocate who wanted to use his belief in ICTs and his own personal experience to encourage his students’ parents to buy personal laptops for their children because he opined would benefit them in their learning. Hence, despite acknowledging his students’ financial difficulties, as shown in the extract below, he wanted to convince those students’ parents that laptops were critical to their academic success, and therefore a worthy investment.

...the students ... because of economic problems, maybe their parents don’t have money for buying laptops for them, but if they do have them, it is better. As I have told you, I have conversed with parents, some parents, yes, to tell them to buy the laptops for their children because it is better, because it can easily help them to study well. So, also, I think ICT, it interests the students, not only the teachers because if you give them an assignment, they will need to check, they will need to research, yeah. I think it is needed. It is needed on both sides. (DM-3)

Given his interest in having students own their own devices, and belief that this was the solution to ICT access issues, Dominic engaged in efforts to encourage his students’ parents to acquire laptops for his students, notwithstanding that he initially claimed they would be disruptive if allowed to use them in class (see Section 7.2.1.2 above ). But he quickly reasserted his actions as a reflection of what students already wanted as he positioned them as equally interested in ICTs as he was. This claim allowed Dominic to reinforce his self-positioning as an ICT advocate conveying students’ ICT needs to their parents and using his status as a technology user to explain the necessity of the laptops in students’ learning.
In fact, Dominic positioned himself as a more believable voice in advocating for ICTs to parents than his placement school’s authorities. This was partly because of his narratives about having benefited from ICTs in his learning as a student but also because of his understanding of the context. Dominic’s self-positioning in the following extract reveal him as a student-teacher fully aware of his trusted position amid the bring-your-own-device policy instituted by his placement school.

[1] ... I can ask their parents and show them how ICT, the technology is very important for their studies, yeah. Maybe the school could ask their parents too, but they may not understand well. But if I do give them my support, huh, give the support... the students’ parents, converse face-to-face with them... I think it will be more understandable rather than the school asking them to buy some materials...some technology materials. (DM-1)

[2] ...as my family were willing to buy me a computer when they knew I was going to start my secondary education, they gave a big support to me. So, it is better when all parents know about the importance of using ICT technologies because it not only helped me while I was in class but also it helped me to learn differently from the class, yeah, because now I can communicate with outside of my country and I can use it also while I’m teaching as I’m an intern. And also, it will continue to help me to apply for further studies because my studies will never end here. (DM-1)

Scholars have underscored the importance of context in teachers’ knowledge and approaches to technology integration (Rosenberg & Koehler, 2016). The above statements reveal Dominic’s understanding and navigation of the relationship between the private school—perceived as a profit-driven business—and students’ parents seeking the best education for their children. Dominic’s plan to talk to parents were thus informed by his contextual understanding that parents may not trust a private school’s officials requesting to spend extra money on students’ personal laptops [1].

Thus, he expected that as an intern—and therefore not a school employee—he was a more trustworthy ICT advocate to students’ parents. He used as evidence his self-positioning as a success story of parents’ investment in their children’s ICT access, which enabled him to stand out “from the class.” By positioning himself as continuously benefiting from the skills he gained from the computer his parents bought him, and claiming that it allowed him to learn “differently” from his classmates—with the implication that it was also better—Dominic
implicitly cast his story as a model for parents to emulate. He also emphasised the future benefits of such an investment by putting his ICT skills at the centre of his plans for further education. This was a tactful reason that tapped into the cultural moral order of a nation that looks up to education as a source of a better future, especially since Dominic knew the parents were already interested in their children’s education.

Yet, while Dominic put forward his students’ interests and altruistic reasons towards his students as factors motivating his ICT advocacy efforts, his participation in this study was also cast as a key factor in his efforts to advocate for parents’ investment in their children’s—and thus his own students’—personal laptops.

As I told you, also these interviews have encouraged me to say something about ICT. (DM-3)

Dominic’s admission that the study had influenced his decision to advocate for ICTs denied the researcher any claim to neutrality by casting him as an actor within Dominic’s own ICT storylines, especially those unfolding during the internship. The implication of this is that Dominic perceived a need to present himself as a certain kind of person—by using and advocating for ICT adoption—in ways that he assumed met the researcher’s expectations, whom he positioned as a pro-ICT actor.

In Dominic’s efforts and advocacy for students’ access to ICTs, he presented students as the beneficiaries while he—the teacher—was only to gain by achieving his objectives which were to support students’ learning. This allowed him to cast himself as altruistic and therefore disinterested. In fact, he asserted that technology access was not a prerequisite for becoming a teacher, thereby reinforcing the claim that further ICT access would primarily benefit his students.

... Even though you have, or you don’t have technology, you can be a teacher. It is possible. But ICT can give a big contribution because it can help you to fulfil your objectives to reach your target as a teacher. (DM-3)

Dominic chose an impersonal “you” to make the link between technology and the identity of a teacher and therefore define to what extent ICTs contributed to the making of his version of what a teacher is. By avoiding first person pronouns and choosing a rather impersonal
pronoun which allowed him to detach his person from the claim he made, Dominic seemed to indicate that he viewed his claims, not within a personal moral order of what a teacher ought to be and have but within a cultural moral order of what makes a teacher. Thus, Dominic implicitly rejected any expectation for him to use ICTs in order to be recognised as a teacher, while at the same time casting his potential ICT uses as volitional and therefore a sign of personal appreciation of ICTs.

In a nutshell, Dominic’s take on the ICT restrictions and practice storyline revealed an educational experience laden with a lack of access to desired ICT tools. It also showcased assumptions that reveal the student-teacher’s understanding of ICT issues in the school and his position vis-a-vis other actors in the storyline. His positions changed as he reinterpreted his lack of access from being an imposed restriction—because of subject matter—to general challenges affecting everyone. This reinterpretation of ICT access issues underpinned his self-positioning as an ICT advocate to parents for the benefit of students and teachers in the school while ensuring his self-presentation as a skilled ICT using teacher.

7.4 The training and assessment of ICT skills

This section introduces storylines around what constitutes ICT skills training in schools. Storylines presented here highlight, from Dominic’s personal experience and accounts, ICT skills and experiences that are preferred/desired or focussed upon by both learners and educators and why such skills and experiences matter.

7.4.1 ICT skills make the teacher different

Through his reflections on his ICT training, Dominic retrospectively positioned himself as more skilled in using ICTs than all his colleagues in secondary education, but also as a different kind of ICT learner/user with unrivalled ICT proficiency among colleagues. As explained below, the outset of his ICT skills development was marked by his parents buying him a computer for his secondary education.

[1] So, secondary school as I have said, my family bought that desktop. So, in my secondary school I was just the best performer. (DM-1)
[2] You see in secondary, for example in senior 1, they came to tell us about computers, desktop, the mouse, the... parts of a computer, the monitor... so because I did know what the parts... those parts... it was different for me and others. (DM-1)

[3] ...But when I went back home, yes, I tried to...I had to change that theory into practice because I had a computer at home. So, it was good. (DM-1)

Dominic’s self-depiction as the ‘best performer’ [1] was enabled by his access to a personal computer allowing him to practice the “theory” he was being taught and explore further what was not taught in class [2] [3]. Since the teaching of ICT was about “telling” [2], and therefore more theory than practice [3], his access and practical familiarity with computers put him at an advantage, thus warranting his claim to be “the best performer”, one who was better informed in terms of theory and practice [1] [2] [3]. Dominic’s claim that this was a “different” way of developing ICT skills distanced him from colleagues who would only settle for the “telling” of parts of a computer in the classroom while he went back home to practice on a personal computer [3]. Here, the personal computer became a powerful artefact in Dominic’s positioning. It allowed him to claim positions that were not available to his colleagues and informed his later approach to classroom ICTs (see Section 7.3.3).

Dominic’s self-positioning as unique in his ICT abilities continued during the internship. He characterised his ICT skills as an exceptional achievement for an English language teacher. He showed this in the following extract where having good ICT skills and being a teacher of English are implicitly seen as antithetical.

Interviewer: Do you see yourself playing any role in the use of technology in the teaching of English at the school?
Dominic: Yes, I can. Yes, I can because as I have studied at the university, I studied languages but I told you I used the machine, I used ICT. Even though I was an English student, I have used the machine also in searching or in keeping notes or whatever. Searching for some news and other information. Even we had some online courses. For example, TELMOOC. It is a programme....it is a course online on ICT. So, yeah! ... if I have an opportunity or chances to use technology in that school. Yes. I can, if I got some chances. (DM-1)

As shown in the above extract, Dominic implied that studying languages and using ICTs (and therefore developing ICT skills) were incompatible feats. His repeated use of contrastive expressions (but, even though) underscored his tacit perceptions of an incompatibility
between being a trained language teacher and being efficiently trained and skilled with ICTs. These contrasts are critical to his self-positioning as different, and underpin his self-distancing from his colleagues whom, unlike him, were not considered best performers or ICT skilled English language teachers. By raising the incompatibilities, Dominic claimed that his ICT skills and abilities were an exception that could not be credited to his training but to personal attributes, specifically his interest in ICTs that led him to take MOOCs besides what was offered on the teacher education programme. Therefore, his earlier access to personal computers and his personal efforts to learn and develop ICT skills in using them served as a means for self-positioning as uniquely technologically competent. He used this to underscore his ability to use ICTs in his teaching and therefore insulated himself from any potential criticisms about failing to use ICTs by appending his ICT use on being given “some chances” rather than lacking the skill or will to use ICTs.

**7.4.2 Students are evaluators of educators’ ICT skills**

As a teacher of English, Dominic anticipated that his students would not consider him a technologically competent teacher, even if he claimed to be technologically skilled. This perception was already implied in his own assessment of his non-ICT teachers whom he considered unqualified to discuss ICT-related issues. The following extract shows Dominic’s positioning of his non-ICT teachers from secondary school.

> It [ICT training] was theory. So, the ICT teacher was the one who could tell us about computers. No other teacher had that capacity of telling us about the use of computers. (DM-1)

As expressed above, Dominic claimed all his secondary school teachers lacked “the capacity” to talk about ICTs to their students, except the ICT teacher. This assertion denied his teachers’ potential claim to be positioned as technologically skilled. Instead, he cast them as unskilled while acknowledging ICT-specific teachers as the only technologically competent teachers. The implication is that teachers of other subjects, like English—were not required and did not use ICTs—during his school experience and were positioned as such by their own students—including Dominic. By becoming a teacher of English, Dominic was thus aware that his students could equally question his ICT abilities and harbour low technological skills expectations from him.
However, unlike his schoolteachers, Dominic’s students reportedly positioned him favourably as technologically competent. This external confirmation of his self-positioning as technologically skilled boosted his confidence in his ICT skills. Below, he recalled his students’ feedback and positioning regarding his ICT skills.

... they [students] said it is good to use ICT. As I have said they said “You are great! You are great because of this. Let’s use it again. Let’s use it again.” But the problem is still there. We don’t have enough items. So, that uhm that result from using ICT shows me that if we do have enough materials, if I do have that chance of using it every day, I think it is good. Also, it has shown me that there is something behind my use of ICT because as I have said it can help me to accomplish my task, to reach my target, yes.

(DM-3)

Here, Dominic was talking of his students’ reaction to how he used ICTs in the classroom. His use of direct quotes from his students’ feedback is a claim to credibility as accurately reporting his students’ appreciation of his ICT skills. His characterisation as “great” and students’ requests for further ICTs were reassurances that his ICT use was successful and efficient in achieving his goals. Besides confirming his ICT skills, his students’ feedback also gave him confirmation that his ICT usage had a purpose, hence warranting a continued use of these ICTs. Thus, he positioned his students and himself as beneficiaries, them for gaining ICT-supported instruction, and him for achieving his teaching targets.

In a follow-up to the above statement, Dominic characterised himself as “the best” regarding his ICT use. This positioning implied a comparison between him and other teachers in the school. As shown in the extract below, he was claiming to be not only an ICT user, but also one who recognisably stood out among colleagues.

Interviewer: So, they thought you are great because you tried to use ICT?
Dominic: Yes! Yes! I have tried. I’m different from the other interns, yeah.
Interviewer: How different?
Dominic: Because, except that one who is doing internship in computer development, software development, others, they didn’t have that.
Interviewer: They didn’t’ try?
Dominic: No, they didn’t try. So, as I’ve said before, I did have curiosity and I wish we had more resources. Also, these interviews encouraged me, yes. And I have seen some difference. I have seen the contribution. I have seen how ICT is interesting, yes, to use it. (DM-3)
Dominic’s claim that he was “different” and “great” was the pinnacle of his self-positioning as an ICT skilled teacher. Being favourably positioned by the students whose judgement he trusted also meant he could position himself as more technologically skilled than his colleagues whom he cast as less interested in using ICTs. Dominic sought to reinforce his positioning as technologically skilled not only through linguistic devices such direct reporting of his students’ feedback that declared him “great”, he also did so by distancing himself from other interns through his claim of being different. This self-distancing from colleagues and fellow student-teachers can be understood in different ways. First, through his self-positioning as unique because he tried using ICTs unlike other interns who were thereby cast as technologically disinterested. Secondly, the distancing shows through his characterisation of his ICT skills not as a result of training—which he shared with other student-teachers on the programme—but as result of personal curiosity. Lastly, Dominic’s self-comparison to a computer programmer as a benchmark for his ICT skills revealed how he wanted to be categorised and perceived—his aspirational digital teacher identity—but also his ICT skills self-assessment. Essentially, Dominic moved away from fellow non-ICT teachers and interns while claiming membership to the ICT specialist category composed of ICT teachers to whom he wanted to be compared.

It is noteworthy here that Dominic relied on his students’ informal feedback—not the formal feedback expected from visiting university lecturers—to claim and confirm his favourable positions as a competent ICT using teacher. This is because the teacher educator who visited and assessed his internship performance made no mention of ICT in post-observation discussions and feedback, despite the use of technology being an item on the checklist. In fact, Dominic used the lack of ICT-related feedback from his visiting teacher educators to affirm that he was ICT-skilled but unable to use ICTs because he was in an under-resourced school. The following extract illustrated this.

I think the reason why they [teacher educators] didn’t talk about ICT is because they [placement school] don’t have enough materials. If they had them maybe they would have always been telling me or obliging me to use it or to show me the contribution of using them. But because they don’t have them, so how can he talk about that? (he later added...)
They gave me marks about other things only. On that one [ICT use] they did not give marks because the items are not available in the school because the schools are
different. If the school has them, no problem you can use them. If they don’t have, okay. It is not your fault. (DM-3)

As shown in the above extract, teacher educators were cast as context-aware, a positioning that was also used to explain and make sense of their lack of interest in whether/how the student-teacher was using ICTs during his internship. It is noteworthy that Dominic saw the teacher educators’ avoidance of discussions about ICTs as proof of their understanding of the lack of access to ICTs in his placement school. He interpreted not being awarded grades for the ICT integration item on the internship rubric as evidence of that understanding rather than a penalty for his failure to use ICTs.

This allowed him to reject any personal responsibility (or weaknesses such as lacking ICT skills) as a reason he was not using ICTs during the observed sessions. Instead he located himself within an institutional and cultural moral order whereby not using ICTs in an under-resourced school was not a teacher’s fault. He makes this evident with his use of the conditional structure (i.e. “If the school has them, no problem you can use them”) that sets both the rights and duties in such an order than the school must provide the ICTs to the teacher (a right) before the teacher is obligated to use them (a duty). Similarly, he chose a generic pronoun “you” to extend the validity of this moral order to other teachers and student-teachers, not just him. Dominic thus felt exonerated from using ICT because the placement school lacked ICT facilities: “But because they don’t have them, so how can he talk about that?” By clarifying contextual obstacles, and his students’ positive view of his ICT abilities, Dominic thereby established his identity as a technology-using teacher, one who was nevertheless obstructed from using ICTs because of contextual limitations.

7.5 Purposes and motives for ICT Acceptance

This section comprises storylines related to ICT acceptance and motives for its use. These ICT acceptance storylines purport using ICTs because it benefits both students and teachers by enhancing learners and is triggered by the teachers’ understanding of this value.

7.5.1 ICT use is compulsory

The Compulsory use of ICT storyline consists of narratives that present the use of ICTs as obligatory, especially because of the benefits expected from such use. Positions in this
storyline revolve around educators being compelled to (not) use ICTs and the implication of such requirements on their positioning. The storyline contains positions in relation to needs and pressures for ICT use that different actors (e.g. students, teachers, teacher-educators) are subjected to within the Rwandan educational system.

Throughout the three interviews, Dominic claimed that the school context and the necessity to meet professional and personal needs of students made the acquisition and fostering of ICT skills a necessity because these were needed at personal and societal level. He characterised his ICT use in educational activities as a contribution to the overall national vision. This allowed him to assume ICT usage as a duty that he owed to the society as an educator. As shown in the extract below, he claimed that supporting his students develop ICT skills was a personal duty because he needed to prepare them for a technology-dependent society.

... you know, uhm...we are in a vision which needs technology. So, I think it [ICT use] will help them also to write, to know how to write emails, you know and try to connect or to communicate with other people in other countries, yeah. Also, to write letters, application letters, or to apply, online applications...So, the computer will help them in different activities, interesting activities. (DM-1)

Dominic saw ICTs within a national moral order, the “vision” that valued ICT skills. He emphasized this by enumerating areas of ICT application that were necessary and likely to benefit his students. The overall aim here was preparing his students for the “vision which needs technology”, a word choice reminiscent of national ICT ambitions presented in the country’s Vision 2020. This forward-looking vision placed the onus on education as a critical sector for achieving the country’s ICT-mediated knowledge-based economy and therefore expected more ICT use and skills from teachers and students. Dominic’s use of the inclusive “we” signalled a collective colocation within the vision, and his claim of belongingness to the group that embraces the ICT-promoting vision.

Relatedly, Dominic perceived that the curriculum compelled him to use ICTs in his teaching, an expectation that reinforced his claimed belongingness to the vision. He highlighted this in the following extract on courses requiring teachers to use ICTs.
The admission that some “courses” require a use of ICTs and that this requirement applies to all teachers (as expressed through the choice of “we”) reinforced his perception of ICT usage in teaching as a duty imposed to all by the curriculum. This is a reference to the contents of the curricula he was using, namely the *TVET Intermediate Workplace English curriculum* and the *TVET Upper Intermediate Workplace English*, both of which contain units that unequivocally require teachers to use audiovisual materials and/or written speeches to initiate students to speaking and listening (Workforce Development Authority 2016, Rwanda Polytechnic 2018). Dominic did not indicate he lacked ICT skills to fulfil this duty, hence suggesting that he was technologically competent for the required ICT usage. By acknowledging the curriculum requirement, Dominic implicitly recognised his curriculum-mandated duty to use ICTs, at least in the areas he listed and therefore students’ right to be taught with ICTs in those areas. He therefore accepted his positioning as compelled to use ICTs in some areas of the curriculum.

Despite the curriculum requirement for ICT use, Dominic’s placement school reportedly did not compel him to use ICTs in his teaching. He indicated that a compulsory ICT use was not part of the institutional moral order he followed in the school, thereby leaving it within the realm of individual—himself—or national moral orders—like through the curriculum. He sought to ascertain the volitional nature of his educational ICT uses and intentions by highlighting a lack of formal requirement to use ICT from his placement school, thereby placing ICT use within his personal moral order. This allowed him to position himself as genuinely pro-ICT. This is expressed below:

**Interviewer:** ... Does your school expect you to use laptops, your students’ laptops in class? Do they tell you to use the laptops with your students?

**Dominic:** No no no. they cannot oblige us to ask them to use it. As I have said, it is a personal arrangement. So, if I ask them to use those laptops, it is my task to control if they do as I have asked them to use them. (DM-2)
Dominic’s emphatic assurances that the school “cannot oblige” teachers to use ICTs (also note the triple “no”) makes teachers’ ICT usage a voluntary endeavour. Despite the placement school’s Bring Your Own Device policy for students, it is implicitly positioned as lenient in reinforcing both the use of the laptops students’ parents were encouraged to buy and the duties of ICT use placed on teachers by the curriculum. Dominic used this as proof that his use of ICTs with students was “a personal arrangement” and thus positioned himself as agentive in his ICT decisions and actions.

He reinforced this view by categorically rejecting any institutional influence on his use of projectors. As shown in the following extracts, he claimed his use of ICTs in the classroom was driven by “curiosity.” He then positioned himself as an ICT user whose views on classroom ICT usage improved after he sought to satisfy his curiosity.

[1] As I said, no one asked me to use it [projector]. It was my curiosity. I wanted to see the role of using a projector. What is the difference? Yeah. Because if I am using my handwriting on the board, I have seen my class is not going well. So, I have made a comparison and I have seen, to use ICT can improve and motivate at the same time me and the students because it will help me not use a long-time writing. For example, we do have fifty minutes of teaching. If I take fifteen minutes of writing on the board, it is different from explaining and showing them the drawings by using the laptop, projectors. Instead of drawing on the board, to show them a picture, it will help them immediately feel present in that course, I think. So, in general ICT can help in many things. (DM-3)

[2] I also had the curiosity of using it [ICT] because before I had never used it. But also, the interview has motivated me because our topic is related to the using of ICT in teaching, yeah. (DM-3)

Although Dominic suggested he was using ICTs because they allowed him to get facts that made his teaching “real”, it is clear from the above extracts that not having tried ICT usage (and projectors specifically) in his teaching before made him “curious” about the actual potential of these tools [1][2]. This curiosity was also driven by his earlier observations that his classes did not work as intended because he was writing on the board, perceived as a time-consuming activity. This curiosity was also increased by his participation in this study [1] [2]. This claim sheds light onto Dominic’s digital teacher identity because it shows that his use of ICTs was not primarily motivated by pedagogical goals, but rather the satisfaction of a
personal curiosity about classroom ICT affordances. This curiosity along with his participation in this study appear as nudges that led him to want to understand what he called “the secret behind using ICT”.

The ability to motivate his students with ICTs by saving time and getting students engaged in the course—making them “feel present in the course”—are discoveries from his curiosity-quenching ICT practices during the internship. Here, Dominic implicitly positioned himself as previously unaware of the affordances of ICTs on his teaching and only discovering them because he was curious, a claim that reinforced his self-positioning as agentive in his ICT “discoveries”.

Additionally, students are cast as becoming more “present” because of the teacher’s move from writing on the board to using a projector, thereby cementing the perception of the teacher’s ICT use as beneficence towards students.

In fact, Dominic felt morally compelled to support his students by using ICTs. On the one hand, he justified this moral obligation by positioning himself as a relative of the students and therefore creating an imaginary family bond that required him to support their access and exposure to ICTs in the school.

...even though I am an intern, but if I don’t give what I have planned to give to students, it is somehow disturbing because I did not reach my plan as an intern. But also, it is very difficult to use one computer for 25 students in the class. It is not easy to control those situations. So, if there is some contribution, they want from me, I can do my best. So, I don’t get paid, I don’t have any payment from the school but I can try....yes, try to find other ways so as to make my contribution to the school because those students are also my younger brothers. Yes. Yeah. I think so. (DM-1)

In the Rwandan culture where family bonds are a highly valued source of pride, Dominic used his description of students as family members to claim a personal duty towards supporting his students’ exposure to ICT akin to that of a family member supporting relatives. His choice of the word “contribution” reinforced the idea of family where he had his share to bring to the collective effort. Also, Dominic’s insistence on his ICT usage efforts while drawing attention to his unpaid internship status indicate a desire to characterise his ICT endeavours with students as beneficence. His efforts in face of challenges—lack of ICT resources in the
school—and his description of students as his “younger brothers” reiterate his self-positioning as a beneficent educator selflessly and committedly using ICTs to help learners. However, this emphasis on his use of ICTs despite his unpaid status also implied that Dominic expected schools to compel paid teachers to use ICTs.

7.5.2 ICT tools as sites of classroom power negotiation

Throughout his discussions of ICTs, Dominic suggested repeatedly that ICTs were both a source of dependable teaching materials and tools for delivering those materials efficiently to his students. This was important to him because he needed to appear knowledgeable in his school which had limited textbooks. As a result, Dominic placed information finding at the centre of his ICT usage as shown in the following contemplation of ICT affordances.

...So, I think ICT is more interesting because I use it to search for new information, I use it to uhm yes to write or to prepare my notes, yes... So in research, whatever I want to research, I use it, yes, so as to see the eh evidences, the real evidences, yeah because if you teach without evidence, I think there is uhm there is no reality there. Yeah, because anything without fact, it is not interesting, I think. (DM-3)

Dominic cast himself as a teacher in need of information in his teaching and one who relied on ICTs—a reference to the Internet—to find that information. He moved from “I” while describing what he used ICTs for, to the “you” as he distanced himself from those who do not want to “teach without evidence.” The implicit comparison between those not using ICTs to find information—and therefore teaching without evidence, which made their teaching uninteresting—and himself, using ICTs to find evidence for his teaching, positioned him as an educator using a perceived technology-enabled evidence-based teaching.

Although Dominic put forth his use of ICTs to find information, he also used ICTs to share information with his students. He reportedly “used flash disks to share notes” (DM-3) with his students or even assigned classroom reading activities on his students’ laptops instead of writing reading materials on the board. However, he indicated that this was not his favourite use of ICTs by expressing discontentment for not having projectors to properly display information to students in front of the class. As the following extracts show, Dominic’s mobilisation of his students’ laptops for his planned activities is presented as a fallback option that he would not have considered if he had a projector.
I have asked them to get together to use those laptops. For example, when I teach a passage... passage or text, I always ask them to use them because uhm... you see I don’t have a projector... So those who have laptops I can give them soft copies and then read together with them. (DM-2)

... so because I don’t have a projector, so I will share with them by using that flash disk, uhm... to give them what I have planned to teach them and for them to follow well. (DM-2)

...For example, if I want to give them a text, we don’t have many books. But if I do have one text and project there, everyone can see without searching for many books. We can see it at the same time, and everyone can read there... (DM-3)

The above extracts show Dominic’s underlying disappointment that projectors were not available for classroom use and that instead of these preferred tools, makeshift strategies had to be used, namely the use of students’ laptops even though these were always available in the classroom. Dominic’s grouping of students around the fewer laptops available in the classroom because some students did not have their own laptops [1] would cast him as frugal in his technology use. However, he did not claim this position because this was not his ideal technology use in the classroom. Instead, he self-positioned as undercut by the lack of projectors and being unable to achieve his ICT use. Giving students the materials to view on their laptops was therefore intended to overcome the lack of projectors [1] [2].

Dominic preferred using the projector because it allowed him to have the attention of all students at once rather than having them access the materials on their personal laptops individually or in groups. Like the artefactual nature of personal computers in his self-positioning discussed earlier, the projector plays an important place in achieving his desired classroom positioning, this time as the teacher in control. Overall, Dominic preferred an ICT use that increased his ability to muster students’ attention and positioned him as the authority in the classroom, a position that was threatened by students working on personal devices which the teacher could not control.

7.6 Concluding notes

In this chapter, I have put a focus on Dominic’s developing digital teacher identity and how he negotiated it by claiming and assigning different positions to himself and those in his educational and professional environments. I have highlighted how he developed different
storylines and positioned himself, his teacher educators and his own students in ways that made him stand out as a competent, motivated ICT-using teacher who was obstructed by the context in which he was, either because he was not receiving the necessary training, or lacked the resources he needed to use ICTs effectively. In the chapter, I highlight how he depicted himself as having successfully overcome these challenges by developing important ICT skills, a success he credited to his unique abilities and commitment to ICTs, thereby identifying himself as a better ICT user than other student-teachers in terms of ICT use and acceptance.

There are important points to note in Dominic’s digital teacher identity development and negotiation shown in the chapter. First, his context and experience play an important role in determining his access to ICTs and how these are used, hence shaping the kind of digital teacher identity he would develop in these contexts. This shows through his self-positioning as a child whose parents could afford to buy him a personal computer and was therefore able to practice the “theoretical” ICT training he received in school, unlike other classmates who had no such personal devices and were therefore unable to develop practical ICT skills. This is then shown to have influenced his later identities as self-proclaimed best ICT user while also serving to legitimate his self-positioning as an ICT advocate to his students’ parents.

Again, as a student-teacher whose ICT usage was portrayed by his teacher educators as disruptive, and as an intern in a school where his access to his desired ICTs (projectors, students’ laptops) was limited, the lack of projectors became an identity-shaping incident for him. It allowed him to realise that he could become an ICT advocate and a role model for his students in his placement school where he also considered himself to be unique in his ICT abilities. The link between context and ICT knowledge and skills in shaping Dominic’s digital teacher identity is evident as he shows how different contexts shaped his access to ICTs and therefore his potential to either develop ICT knowledge and skills (e.g. when he was a student) or display his mastery of such skills (e.g. the lack of projectors that prevented him from using ICTs in his teaching).

Next, age appears as an important marker of Dominic’s identity. His self-positioning and the positioning of his students during the internship in relation to ICT use and access are all informed by his perception of the link between ICT use and age. Age is also an important element in Dominic’s use of ICTs as it is used to justify why he feels it necessary to initiate his
students to the use of ICTs, which he portrays as a service to his “young brothers”. Lastly, Dominic shows the researcher’s influence on his practice and the research’s overall influence in the shaping of his digital teacher identity, mostly by getting him to reflect and try to use some ICTs. The research is shown to have allowed him to test his views, thereby leading him to find evidence to prove that he was a competent ICT using teacher while also reformulating his approach to students as potential disruptive classroom ICT users.

In the next chapter, I turn to another student-teacher whose background and placement school experience differed from Dominic’s and also played a key role in her digital teacher identity negotiation.
Chapter 8. Denyse’s enactment of a digital teacher identity: “There was no motivation”

8.1 Introduction

In this chapter, a focus is put on Denyse’s negotiation and enactment of her digital teacher identity as she positions herself through ICT usage or lack thereof. Denyse’s self-positioning and identity claims respond to her perceived and explicit challenges she experienced in the school system where she was training to become a teacher. Extracts used in the chapter are tagged to indicate which interview they came from, using DE for Denyse and a number, i.e. DE-1, DE-2, DE-3 for first, second and third interview, respectively.

At the time of this study, Denyse was a 27-year-old student-teacher majoring in English. She grew up in a rural area and studied in rural schools before going to University. Her secondary school studies were in language majors. With regard to ICT use, Denyse grew up without much access to ICTs. At the time of the interviews though, she used different digital tools (radios, mobile phones, laptop and speakers). Despite this, she considered herself a non-ICT user who did not have all the required skills.

Denyse conducted her internship in a TVET school affiliated with a faith-based charity in Kigali. The school offered upper secondary education in tourism and accounting, and computer science and hotel operations. This school was relatively small and had less than 200 students at the time of the study. Denyse often left the school as soon as her timetabled teaching was over and went home where she prepared all her lessons. For “mentor”, she was paired with a language teacher, a graduate from the same programme years before. However, this “mentor” was also working at another school. According to him, he and Denyse had been timetabled to teach different classes at concurrent times, hence making it difficult for them to observe each other’s teaching.

In the following sections, I will use different storylines in Denyse’s discourse to understand the different positions and digital teacher identities she claimed, assigned or negotiated as she recounted her ICT experiences during her teacher training and especially during her internship.
8.2 ICT Skills and training

The experience of training to become an ICT user and approaches to ICTs in the training process were important features of Denyse’s take on ICT storylines. Her narrative evolved around skills to use certain ICT tools, training strategies used, ICT skills evaluation and ICT learning opportunities and challenges during the teacher education programme and the teaching internship particularly. While many of these sub-storylines draw from the generic characterisation of ICTs and their educational application as conveyed in policies that influence the teacher education discourse, they convey Denyse’s perception of what it means to be (and how to be) a technology-using teacher, her perceived meaning of technology in the language classroom, and her perceived ICT training needs and rights as a student-teacher. Denyse positions herself from different vantage points as she develops these storylines.

8.2.1 ICT training is theoretical, not practical

A key aspect of Denyse’s discourse on her ICT training was the effectiveness of the training and its accessibility to student-teachers. The lack of practice during her ICT training came up as an important issue for her, which she then linked to how this affected her ICT practice as an intern. The lack of practical ICT training was associated with the lack of resources. In the following extract, she shows how resources unavailability affected her ICT training opportunities negatively and therefore limited her acquisition of practical ICT skills she needs as a teacher.

Denyse: No, there wasn’t [practical ICT training] ...we did the theory.
Interviewer: Ah! So, you learnt how to use ICT theoretically?
Denyse: Yes.
Interviewer: Can you tell me about that? [laughs] how did that go?
Denyse: [laughs] we learned how to do control, to use some controls, he said “You go to control and click here and click,” like that in theory. And other programs in theory.
(DE-1)

The above exchange shows Denyse recounting her ICT training experience in secondary school. This exchange came after suggesting there were no “computers” at her school. Thus, the account favourably justifies the actions of her teachers who forsook the expected practical ICT training for a “theoretical” alternative because they had no resources for the former. Her use of direct quotes of instructions received (“You go to control and click here
and click”) is her claim to credibility that she was accurately reporting on how she was taught. Here, Denyse’s understanding of “theory” alludes to a lack of practice in the ICT training that consists of an abstract description of practical steps. She used this “theoretical” ICT training to justify her limited ICT use during the internship, suggesting that her experience learning to use computers in “theory” deprived her of practical ICT skills that she needed to teach with ICTs. Thus, she implicitly self-positioned as poorly trained technologically even though she was officially positioned as ICT trained for having taken ICT courses in her secondary and university training.

Relatedly, Denyse self-positioned as a victim of the “theoretical” ICT training by showing the impact the lack of ICT practice had on her ability to adapt to training in later stages of her education where ICT skills became a prerequisite for further training, thereby jeopardising even further her chances of becoming an ICT using teacher. She detailed how prior ICT training affected her later ICT training below.

[1] ... as I said, in upper level we didn’t study ICT well, so when we came to the college, we didn’t even know how to use it well. We could let the one who knows to access that ICT or that...connection. But the people who didn’t know, they didn’t access. They would let the person, or the student who knows to do it. (DE-1)

[2] As I said in previous interviews, I said in studying ICT in university it was hard because we had few computers and on one computer could sit five people, five students. It is difficult because all the students didn’t have the level... the same level of studying, the same level of understanding, the same level of learning. So, the ones who have motivation or who have more knowledge about ICT could use it and others they don’t, they didn’t. (DE-3)

The above extracts should be understood in three ways. First, that Denyse positioned herself as one of those who were poorly trained technologically in secondary education. She reaffirmed this self-positioning and categorisation through her use of “we” to complain about not studying well [1]. She later changed to a more neutral position where she recounted what happened by referring to those affected as “they”, a strategy that allows her to create categories of those who could and those who couldn’t use ICTs because they lacked prerequisite ICT skills [1] [2]. At the same time, she de-personalised the traits of those in the “not knowing” category to which she belonged so as to generalise these characteristics to others. Despite the shift from “we” to “they” [1] which allows her to claim a neutral position
of an independent observer reporting on witnessed events. Denyse’s self-categorisation as one of those who could not have access because they lacked prior skills is reinforced by her focus on the experiences of those whose lack of skills restricted further their ICT access, hence making it “harder” for them to acquire any ICT skills.

Secondly, the above extracts suggest that Denyse did not gain the ICT skills she wanted or expected from her programme. She negatively evaluated her ICT training on the teacher education programme which she criticised for benefiting more those with prior “knowledge about ICT” and disadvantaging those who did not [2]. The criticism also highlights that the training ignored student-teachers’ differences at many levels. Here a categorisation of beneficiaries and non-beneficiaries of the ICT training is established. Denyse’s narrative suggests an “epistemic positioning” which is concerned with “how rights to know something are distributed and contested, how duties to remedy ignorance are imposed” (Harré, 2012, p. 203). Denyse showed that the level of ICT knowledge on the teacher education course restricted her right to develop practical ICT skills because the training context and its challenges only allowed those with prior knowledge to fully benefit from the training.

Lastly, Denyse’s accounts indicate that upon starting her training at the teacher education college, student-teachers were already positioned as having the prerequisite ICT skills even though this was not the case. Yet, the teacher training she received was built on this assumption that all students would have received the required practical ICT training, hence limiting learning opportunities for Denyse and those with similar characteristics. This epistemic pre-positioning of the student-teacher before she even started the programme can be described as a ‘malignant positioning’ (Sabat, 2003) because of its unintended but still negative impact of limiting students’ opportunities to receive support in areas where they did not meet prerequisite ICT skills needed on the programme.

Denyse challenged this epistemic positioning on the teacher education programme by implicitly criticising ICT practices in universities. This shows in the following extract where she requested the interviewer to “advise lecturers”:

As I said, there is a problem in universities of using ICT. So, if you get there, try your best to improve it. Try your best to advise lecturers to use it so as to improve the students who are there. This is all I can say. (DE-3)
As the above extract shows, ICTs are not used in universities and the culprits are the lecturers who need to be “advised.” This may imply that Denyse who called for “advising” rather than “training” perceives the problem to be a lack of will rather than skill because the situation can be changed by “advising” teacher educators to use ICTs. There is also a tacit positioning of the researcher as more technology-friendly, a position that warrants the “advising” duty towards teacher educators whom Denyse unfavourably positioned.

8.2.2 ICT Modelling and support for student-teachers’ ICT skills development

It is expected that ICT training for preservice teachers would also include modelling best ICT practices for them. Teacher identity researchers contend that “If we want current and future teachers to identify effective practices for using technology in their classrooms, we need to role model what that looks like.” (Trust, 2018, p. 55) Relatedly, Denyse expected her teacher educators and mentors to model ICT practices for her. She used her teacher educators’ ICT support and modelling or the lack thereof to position herself and those educators in various ways. In the following extract, she observed that there was no technology modelling in her training instead of which suggestions were given on how to learn about using technology. In this recollection, she positioned her teacher educators as distant and disengaged in her acquisition of practical ICT skills. Her use of direct speech was a claim to objectivity in her accounts and therefore an assertion of the positions she assigned to herself and others in this account.

They [teacher educators] would say “Go to the Internet and see how the lesson is going.” There is a course which we studied, we used e-learning, E-learning in ICT and our lecturer said, “As we are in e-learning, go to the Internet and see how the other students from outside the country are doing and follow it.” And as you see, in this university we have many works, much work. Everyone could not get time to go to see... to go there on the Internet. That is the problem we met. (DE-1)

In this extract, Denyse highlighted the lack of ICT practice through a direct reporting of her teacher educators’ words to give a clear picture of what was happening rather than giving a personal evaluation of the ICT training experience. She specifically referred to ICT training modules in which students were expected to develop skills in using ICTs for teaching and learning, in addition to general ICT skills. The student-teacher’s account did not indicate that the teacher ever showed/taught them how e-learning worked. Instead, they were told to “go
and see” using the internet, without follow-up, as she later clarified. Also of critical importance here is that Denyse did not blame the teacher educators for all her lack of understanding of e-learning but rather positioned herself and other student-teachers (“we”) as overwhelmed and too busy to find time to “go and see” how e-learning worked as suggested by the teacher educator. Thus, her lack of understanding of e-learning was blamed on the system itself which kept student-teachers too busy to explore e-learning as directed by the teacher educator. An important observation here is that even with an implicit admission of personal shortcomings, Denyse still managed to position herself as a victim in a system that overloads student-teachers with too much work that prevents them from learning about e-learning.

In fact, despite generally limited ICT modelling or experience with ICTs, Denyse acknowledged that in one of the courses she took, there was more than advice to “go and see.”

I remember in level one... when we were studying Foundations of English, we used to go to the laboratory...to the Internet, to use what we were calling e-learning. Our teacher could give us some exercises and we go to the internet to correct them or to answer them. And by...when we finished to answer them, we attached them to an email...we sent it to her email. (DE-1)

Here, Denyse claimed an evolving awareness of technology trends and discourses around ICTs for learning. She achieved this by characterising her teacher educator’s ICT integration efforts as a “e-learning” while at the same time dissociating this past understanding from her current understanding of “e-learning.” Her subtle use of the past tense (”what we were calling e-learning”) suggested reservation from using “e-learning” to describe the same practice at the time of the interview. This implied change of understanding of e-learning allowed Denyse to implicitly position herself as a differently informed and therefore an updated version of herself. The account depicted a change in Denyse’s past understandings of what certain ICT practices were construed to be. However, her choice of the plural pronoun “we” also implied a group positioning which suggested that she was not the only one whose understanding had changed. Nevertheless, by drawing attention to the evolution of her understanding of e-learning and the different positions she saw herself occupying throughout the process, Denyse claimed the position of a technologically informed student-teacher capable of
retrospectively and critically re-evaluating her past and present understandings of “e-learning.”

While learning from her teacher educators, Denyse viewed ICT practices on her teacher education critically. She expressed dissatisfaction with the practices modelled for her and her differing views of what ICT meant as well as its place in the classroom. This appeared in the extracts below where her technology training experience, technology expectations and ICT beliefs were brought together.

[1] ...They [her lecturers] consider ICT as a course, not as a tool for using in teaching. (DE-3)

[2] People are not using ICT in a good manner or in a good way because they think ICT is a course and it is not a tool for using in teaching. That’s why, many people, they don’t consider ICT as a tool, they consider it as a course. So, they don’t... they didn’t use it as well. (DE-3)

The suggestion that ICTs are considered as a course was a speech act intended to criticise teacher educators and the teacher education programme itself [1]. Denyse’s scathing criticism of her teacher educators’ failure to use ICTs “well” because they understand “ICT as a course” not a “tool” highlights not only her dissatisfaction with the training she had received, but also her persistence in seeking to self-position favourably by negatively positioning others.

In the above statements, Denyse self-positioned as an observer who understands what “people” are doing but should not be doing regarding ICTs [2]. Being a teacher who claimed to lack ICT skills but brought ICT devices to the classroom, this appears as an implicit criticism of the teacher education programme’s failure to focus on the ultimate needs of their student-teachers—i.e. using ICTs as tools for teaching and learning. She distanced herself from such practices through her use of othering and generic concepts like “they” and “people,” which reinforced the unfavourable positioning of anyone considering ICT as a course rather than a tool. According to Devin (2016, p. 46) “othering refers to differentiating discourses that lead to moral and political judgement of superiority and inferiority between ‘us’ and ‘them’.” Similarly, Denyse signalled how ICTs ought to be used. She claimed others were “not using ICT in a good manner” because they did not consider ICT as a tool for teaching. This established her self-positioning as more aware of best ICT practices (superiority claim) a move through
which others (i.e. lecturers, people) are “described through a deficit framework” (Devin, 2016, p. 46) enabling their implied unfavourable positioning as bad ICT users who should be shunned.

Denyse’s criticisms should be understood along other aspects of Denyse’s digital teacher identity. She admitted not finding time to learn about “e-learning” as advised by the teacher educator and claimed to bring personal devices to school for teaching but considered using ICTs regularly problematic because students would be more interested in ICTs than listening to her. In each of these claims, Denyse sought to self-position favourably by ascribing to others traits that justified her own practices and behaviours—and thus her claimed positions. The underlying claim is therefore that she had not found time to discover “e-learning” because the programme overloaded her with tasks. She could bring personal devices to school because the school had failed to equip her with the ICT tools she needed in her teaching, but even after bringing these, she could not use them regularly because students would be inattentive to what she had to teach. Thus, although Denyse may not have received ICT support or modelling she hoped for, her development of this storyline show her othering everyone in her context by consigning them to a “restricted understanding” (Devin, 2016) as being and representing obstacles to the realisation of her ideal digital teacher identity.

8.2.3 Internship as a practical ICT experience

For Denyse, the internship was a challenging time because it involved using ICTs for the first time in her teaching. This challenge also gave her an opportunity to develop hands-on ICT skills that were only possible through practice, which she claimed was missing in her formal training. As shown in the quote below, using ICTs was a transformational occasion for Denyse because it was the first time to test the educational merit of ICT tools while boosting her confidence in the process.

… of course there is change because when you are using something, you get the knowledge about it. So, from the beginning, I could not say that I knew everything but now, I know something. And I think that if I could continue my internship or continue using it [ICT] in my course in in teaching, I could get another knowledge, but it is different from the uh the beginning. (DE-3)

Above, Denyse positioned herself as technologically changed through (internship) practice. She extended this positioning to other actors by using the generic pronoun “you” before
moving into a personal moral order and exclusively self-positioning as more knowledgeable and more experienced technologically than she was before the internship. Here again, Denyse presented herself as a teacher constantly learning and improving. In a follow-up to the above statement, Denyse explained the kind of experience she had gained throughout the internship.

[1] The first experience ... it is to connect uhm to connect those materials. The second one is the use of it. The third... it is how I can manage those materials in teaching my subject because I didn’t have experience of it but I now... I get it. (DE-3)

[2] What I was not able to do.... It is I could find the speech, but to manage it or to download it so that I can get it to my laptop, it was difficult. But now, I know how to do it. And I know how to connect that speech to another device. (DE-3)

Here, Denyse positioned herself as a more technologically versed person whose improvement came after hands-on experiences with technology during the internship [1] [2]. Since the skills she claims to have developed during the internship are basic ICT skills, their enumeration here can be understood as an implicit criticism of her teacher training failure to equip her with the basics. Denyse took her implicit criticism of her teacher training even further by claiming that she lacked practical skills to “find the speech” she needed for teaching or load it onto her device before she started the internship—despite “finding information” using ICTs being a learning objective for many course units on her programme. With this, she thus rejected the positioning of student-teachers in ICT training storylines as skilled enough to use ICTs in their teaching (see Chapter 6) Nevertheless, Denyse’s comments in the above extracts reinforced her self-positioning as technologically unskilled but proactive in developing ICT skills she deemed useful in her teaching.

Although it has been suggested that during the teaching internship student-teachers learn more because they are being supported by mentors and the use of ICT tools and programmes are modelled for them (Buss, Foulger, Wetzel, & Lindsey, 2018), Denyse improved her technology skills as a matter of swim or sink. As she claimed, her mentor provided no mentoring support and the school had no books, leading her to use internet. She also self-positioned as intrinsically motivated to learn about ICTs and presented the internship as an opportunity for her to pursue her interest in ICTs. She explained this in the following extract where her personal pro-ICT views and reflexivity are brought forward.
...what pushed me it is—I have improved because I always wanted to know how ICT works. How I can find for myself information that I need. I could have taught some speeches by writing them but because I wanted to use ICT...I took the initiative to go look for it. It is my initiative.

(DE-2)

The above extract shows Denyse’s positive ICT beliefs as she positioned herself as intrinsically motivated to use ICTs in her teaching. She emphasised this by indicating that she had other less challenging alternative ways of teaching “speeches” that did not involve using ICTs but chose to go the ICT road. Here, she placed her ICT use in teaching within her personal moral order and reinforced this by repeatedly using the first-person singular—I—which allowed her to claim the right to be acknowledged (at least by the interviewer) as ICT-friendly and agentive. Her insistence that trying to acquire new skills and using ICTs was her “initiative” appeared as a counterbalance to what she suggested as a compulsory use of ICTs in her teaching (discussed in Section 8.3.1). Thus, the assertion that her ICT interest was not recent but one that had “always” existed was also a rejection of any influence on her ICT practices, and thus a firm claim of total ownership of her “improvements” in ICT use during the internship. With this claim of personal initiative, Denyse effectively sought recognition of her self-positioning claim as agentive in the pursuit of ICT skills that she deemed important to her digital teacher identity.

8.2.4 ICT skills assessment and ICT skills development

Denyse was keen on discussing how ICT skills she thought were needed or expected from her and others were assessed and appreciated. She indicated that the determination to develop ICT skills further hinged upon the perceived value of ICTs expressed through her teachers’ assessment practices. In the following exchange for example, she expressed disappointment in her secondary school’s ICT course—which was not assessed in national exams—where students were given fictitious grades because they had not been sufficiently trained to pass a school-level ICT test.

Denyse: ...we did no [ICT] practice in exams because in studying there were some students who knew better, they could take all practice while all the others are standing or without doing the practice because they did not know.

Interviewer: So, what happened then if some were very good and they did the practice, what would happen in the exam then?
Denyse: They could... they could give us the marks because it was not a course that we would do in the [national] exam.

Interviewer: So, it was not a main, a main subject.

Denyse: not main subject.

Interviewer: So, the teachers would give you marks even if you...

Denyse: ...yes, so that we can continue to study.

Interviewer: Hmm...tell me more about that ...what did you think of that?

Denyse: What I think is it was not okay because we could all do practice but because our teacher did not follow us, did not know that everyone could not participate. So that’s why some did not practice while every person was allowed to do it. So, I think it was not good for that. (DE-1)

The dissatisfaction expressed in Denyse’s comments was centred on the lack of practice (see Section 8.2.1) and her teachers’ lack of attention to individual students’ differences and abilities which led to questionable assessment practices. Here, Denyse self-positioned as a beneficiary of these assessment practice—by receiving undeserving grades. Despite this, she also saw herself as unjustly denied her right to ICT practice because “everyone was allowed to practice” in principle. Denyse positioned her ICT teachers as indifferent to the fact that “everyone could not participate” which they tried to remedy by awarding fake grades.

Teachers are also positioned as conscious of the negative impact this could have on students’ studies, hence their decision to award fabricated grades to students so that they “can continue to study”, an implicit reference to a practice of requiring students to repeat failed classes. While it kept students moving forward, this assessment practice malignantly positioned students whose practical ICT skills failed to match the fictitious grades because they could not pass the test. This allowed Denyse to characterise teachers as failing in their duty to provide grades that reflected the student’s actual skills as well as failing to create equal ICT skills development opportunities for all. Again, this implicitly reinforced Denyse’s self-positioning as poorly trained technologically while underscoring that her lack of practical ICT skills was due to different actors—not herself—failing to meet their duties towards her as a student.

Relatedly, in her internship, Denyse expected feedback and support regarding ICT usage—construed as a student-teachers’ right during the internship—but received none from her mentor or visiting teacher educators. Her failure to obtain feedback became a powerful device for self and other-positioning. As shown in the extracts below, she lamented the lack
of feedback on her use of ICT from a lecturer who visited and assessed her overall internship performance.

Interviewer: So first, did the examiner talk about ICT in any way during your internship?
Denyse: No. She didn’t.
Interviewer: Do you know why she didn’t talk about that? Because one of the items they have to check is whether you are using ICT, so did they not talk about that?
Denyse: I think she also, she doesn’t know about… she doesn’t consider using ICT in teaching. She considers few things like lesson plans, scheme of work, but not considering that… and this is because she doesn’t deal with our subject. She is in another department, not in languages. (DE-3)

Later as a follow-up on this exchange, Denyse adds...

Denyse: I think if she checked my materials, she could have found, or she could discover the use of ICT, but she didn’t ask if I use it. But even if in my content there isn’t ICT use, she could not ask because even in university, there was no, no use of ICT. They didn’t consider it as a tool of teaching. (DE-3)

Denyse used the above statement to criticise her teacher educator who came to examine her during the internship. The extract shows that the teacher educator did not give feedback or advice on ICT use to the student-teacher or even attempt to see whether the student-teacher was using ICTs in her internship. For Denyse, this was a disappointment given that her efforts to integrated technology in her teaching was aimed at receiving the teacher educators’ approbation. This led Denyse to distance herself from the visiting teacher educator by characterising her as a member of a different field: “She is in another department, not in languages.” (An analysis of Denyse’s “othering” strategy is presented in Section 8.2.2 where I discuss a storyline that intersects with this one).

This categorisation of the teacher educator as an outsider who lacked a language background allowed Denyse then to position the educator as incapable of understanding ICT usage in the teaching of English, and because of that, one who is oblivious to how/if a student-teacher uses ICTs in teaching. (Note the statement “if she checked my materials, she could have found…”). However, while this categorisation served well the positioning of that teacher educator, the pertinence of its logic faded when Denyse positioned all teacher educators “in the university” where there is “no use of ICT” in the same way. This is therefore where a move
from positioning the individual teacher educator morphed into positioning the whole body of
academics at the institution as non-ICT users for learning purposes, not because they lacked
the skills but because of their attitude towards technology: “They didn’t consider it as a tool
of teaching.”

An important observation from the above extracts is that the process of assessing student-
teachers’ ICT skills was perceived as a positioning act in its own right. Denyse had expected
that the visiting teacher educators’ feedback would position (or reposition) her—Denyse—
favourably as more technologically competent than she had been. Not assessing these skills
implicitly signified—for Denyse—an unfair and deliberate move by the teacher educator to
position her unfavourably or at least to deny her the right to claim a favourable position as
an ICT-using teacher.

In fact, having acquired some ICT skills without the involvement of her teacher educators, an
attempt to position herself as a self-taught ICT user, Denyse felt entitled with a right to have
those skills appreciated by her educators. Thus, her visiting educator’s indifference to her ICT
efforts was seen as a rejection of her claim to this position. Her disappointment was evident
in the following extract where she specifically indicated that her efforts to improve her ICT
skills were motivated by a desire to be appreciated by visiting teacher educators.

Interviewer: So, without the internship, if you had not been in that internship, do you think
you could have improved?
Denyse: No. I couldn’t improve because I would say, “no one is looking at me. I can do
what I want.” But because it is the internship and I want to show somebody who will
come to supervise me, so that’s why internship facilitates me in using ICT.
Interviewer: Ah so, you are also using ICT because you want to prove to the supervisor
that you are doing very well?
Denyse: Yes.
Interviewer: can you tell me why you think you have to prove them that?
Denyse: because erm they send us to go to do internship so that we can improve
ourselves or we can gain other knowledge... so it is better to show them that there is
something in which you have improved or you have gained during the internship.
That’s why I’m using it so that to prove them that what they told me to do, I have
done. I did. (DE-2)

While Denyse complained about going to the internship without necessary ICT skills, she also
understood that she was expected to acquire “other knowledge” during this part of her
professional training. Having put efforts in her ICT skills raised her hopes for appreciation and favourable positioning from her visiting teacher educators. These statements were made before the university lecturer’s visit and expressed that she was expecting them to commend her ICT practices. She anticipated that “They will be happy because I’m doing what I’m supposed to do.” (DE-2).

The teacher educator’s failure to take notice of what Denyse considered a personal achievement was scathingly disappointing because her ICT efforts were meant “to show” the teacher educators her improvements over the internship. Therefore, for Denyse, the teacher educator’s disinterest in looking for evidence of technology use during the internship also amounted to a rejection of her claim to be positioned as an “improved” ICT-using student-teacher. The social force of this to Denyse became almost synonymous with an accusation of failure despite the efforts invested in using ICTs. For her, it was an unwarranted and unfair positioning that she wanted to challenge. This therefore caused the student-teacher’s resolve to distance herself (as a technology user and believer) from the teacher education programme whose educators she positioned as lacking an understanding of ICT as teaching tool, having no interest in using ICTs and not using ICTs in their own practices on the programme. This made the assessment of ICT skills a ground for reciprocal positioning between teacher educators and student-teachers. For example, Denyse implicitly positioned the teacher-educator who had failed to provide feedback on her ICT use as unskilled in terms of ICT in education by stating that “she doesn’t know about... she doesn’t consider using ICT in teaching.”

However, this unfavourable repositioning of the teacher educator came as an attempt for Denyse to reclaim a favourable positioning after perceived denial of rights by her teacher educators. Denyse’s expectation that her visiting teacher educators would commend her internship ICT practices showed a prepositioning of the teacher educator as an authority to look up to in ICT related issues. She implicitly expected that the educator’s assessment—and potential appreciation—of her ICT usage would remedy the negative feedback she had received from students regarding her ICT usage during the internship. The educator’s failure to meet these expectations thus availed new positions for both her and the teacher educator. She thus cast herself as an ICT-friendly intern whose skills had improved regardless of the teacher educators’ lack of support and input. Here, the implication is that by failing to see ICT
as a tool for teaching and prepare Denyse for her classroom role accordingly, teacher educators had become responsible for ICT-related classroom failures. In the extract below, Denyse recalls an incident where she was teaching a Unit from the TVET English curriculum which mandated her to use recordings of speeches. She had found a speech on YouTube that she brought and played in class but the makeshift sound system—consisting of her personal laptop and a small speaker she brought from home—was not loud enough for the class to listen properly.

Interviewer: ... did your students react to your use of ICT in any way that gave you an idea of how you were using it?
Denyse: Of course, because it was their first time... Other teachers, they didn’t do it so they could have a reaction. They reacted that my method... it is not well planned because some, they didn’t catch the meaning, they didn’t listen well... So, they reacted to it.
Interviewer: So, the students showed you that they couldn’t hear and then you deduct from it that your method was not well planned?
Denyse: Yes.
Interviewer: And uhm... did you change because of that?
Denyse: Yeah, I tried to change but the challenge is that I have poor knowledge about it. I didn’t get someone to advise me so that I can change. So... we continue to live in that mood, but I want to improve it. I want to get knowledge from outside so that my improvement can be achieved. (DE-3)

As can be seen above, the characterisation of Denyse’s ICT use as “poorly planned” is not seen as a personal shortcoming but rather a lack of knowledge imputable to others—those who were supposed to train or support her. There are many positioning processes that Denyse initiated here. On the one hand, students who positioned her as poorly prepared are reciprocally positioned as trusted judges who gave accurate feedback which she wholeheartedly accepted: “I have poor knowledge.” Thus, she accepted being thus positioned by her students and reflexively positioned herself as lacking the necessary ICT skills to meet her students’ expectations.

However, Denyse accepted students’ negative feedback because it granted her rights for further self-positioning. She showcased this by positioning herself as an innovative teacher who reportedly brought ICTs to her students for the first time, hence doing what others never tempted to do: “it was their first time.” In this position, Denyse indirectly positioned the
teacher educators (including mentors) as failing to “advise” her on ICTs and therefore being responsible for the “poorly planned” ICT use. Thus, she positioned herself as a victim of other people’s failure to meet their ICT training duties towards her, but also as a dynamic learner working towards improving her ICT skills with “knowledge from outside” because of the insiders’ (i.e. teacher educators) failure to meet her needs but also their duties towards her.

Overall, this section shows changes in Denyse’s self-positioning and positioning of others because and as a result of experienced ICT skills assessment practices. These changes are indicative of her evolving awareness of ICT rights, duties and positions in her educational context where she attempted to acquire and apply ICT skills. Denyse positioned and repositioned herself and others based on how her ICT skills had been assessed. Changes in how she positioned her teacher educators—often in response to how she perceived to have been perceived—is illustrative of the contention that people see the world “from the vantage point of that position and in terms of the particular images, metaphors, story lines and concepts which are made relevant within the particular discursive practice in which they are positioned.” (B. Davies & Harré, 1990, p. 46). For instance, she implied that being awarded fictitious grades in ICT courses had become a right because the teachers failed to provide practical ICT training to everyone—a denied right that had to be compensated by grades, but one left a skills gap. She also perceived that teacher educators were keen to see her improved ICT skills upon visiting, a positioning she later revoked after she realised the visiting lecturer was looking to see how she used ICTs. From this “vantage point” she positioned her teacher educators as lacking awareness of ICT in language teaching. Lastly, from an unfavourable position resulting from her students’ negative feedback on her ICT use, Denyse saw an opportunity to unfavourably position her teacher educators, using the feedback as evidence that her teachers and teacher educators had failed to prepare her effectively. Thus, all her positioning converged to show her as disserved and denied her ICT training rights by those whose duty it was to provide her ICT training and assessment.

8.3 Classroom ICT use

Teacher “identity is thought to be constituted in part through teachers’ participation in concrete practices and tasks.” (Trent, 2014, p. 45). For teachers in the process of developing a digital teacher identity, the internship provides an opportunity to engage with ICT tools,
resources, and classroom activities in their context. This engagement involves the enactment and negotiation of the developing digital teacher identity as it involves acceptance, rejection and claims to various positions available within classroom ICT use storylines. This section looks at storylines that carry certain relevance for Denyse as she addressed contextual ICT factors and challenges, practices, experiences, and the potential gains of using ICTs for teaching and learning.

8.3.1 Context and compulsory ICT use

Using her accounts of planned, attempted, or desired uses of ICTs in teaching English in her context, Denyse positioned herself as circumstantially compelled or impeded in the use of ICTs in her teaching. Sources of ICT-use coercion or impediment that Denyse raised include the curriculum, the context in which she worked and her own desire to keep students motivated and protected from boredom.

Regarding the nature of the curriculum, for example, Denyse claimed to be compelled to use ICTs in teaching because the curriculum demanded the use of ICTs in teaching some units. In the following extracts, she developed this compulsory ICT usage storyline by alluding to curriculum demands and how she responded to those demands.

[1] I have been using it. Especially I have a unit which requires to use ICT in— using audio materials. So of course, I’m using it. (DE-2)

[2] ... I have some unit which is called “speech” taught by using some records, recorded speeches of others...To me that is how I am using ICT in teaching. (DE-2)

[3] ... the materials that I used... because I uhm I had to teach a chapter called using audio materials in teaching speeches. So I could use uhm... the internet so that I can get some speeches, and by using the internet, there is a need of using computers so that that speech that I take from the internet, I could connect to my machine or to my laptop and speaker so that all the learners could listen. So, I use the laptop, internet, speakers... that’s what I use. (DE-3)

Denyse’s assertions that she “had to teach a chapter called using audio materials in teaching speeches” is a reference to the curricula she was following in her teaching, and specifically units in the TVET Intermediate Workplace English curriculum and the TVET Upper Intermediate Workplace English called “Apply a range of listening strategies to understand predictable messages” and “Listen to audio messages with different English accents to get the
intended message” respectively. Both units recommend the teacher to use ICT-related resources and explicitly name “Audiovisual materials”, “Projector”, “Computer”, “Recordings” as “resources” while recommending learning activities such as “Listening to TV shows” and “Listening to radio programs” (Workforce Development Authority 2016, Rwanda Polytechnic 2018).

As shown above, Denyse positioned herself as an unquestionable and self-evident ICT user. She asserted this position with an emphatic expression (“of course”) [1]. She considered that technology use in her teaching of English was made imperative by the very content that she was supposed to teach [1] [2]. Her choice of words (“had to,” “requires”) [1] [2] reinforced this perception of a mandatory ICT usage and suggested a lack of alternatives but to comply. Thus, Denyse embraced ICT use as a duty. She illustrated this through her description of the steps she took to fulfil that duty of teaching listening with the use of a range of ICT resources, some of which were personal devices [3]. These views of mandatory ICT use were made both in the middle and at the end of internship, and Denyse did not question being required to use ICTs, hence suggesting an understanding and acceptance of the mandatory nature of ICT use in her teaching.

However, the TVET English curriculum at both intermediate and upper intermediate levels do not make explicit reference to ICT throughout their units. For example, Unit 2. Read correctly a range of materials and Unit 4. Produce a variety of medium texts on professional and general topics in the Level 5 Upper Intermediate Workplace English do not recommend using ICTs in most of the sub-units, and only list projectors—which most schools do not have—as a resource in two sessions. Denyse interpreted this not only as ICT use not being mandatory but that there is an implicit instruction not to need to look for ICT potential. She expressed this sentiment in the extract below.

…there are some units that cannot... that do not need to be used with ICT. Some topics are in books, so I think there is no need of using it. (DE-2)

While the curriculum was used to justify Denyse’s ICT usage for some units, it also served to legitimate her lack of ICT use in others where it did not clearly instruct teachers to use ICTs in the teaching of those units. Thus, Denyse justified her ICT practices as compliant with the curriculum ICT usage requirements.
Denyse also positioned herself as compelled to use ICTs by the lack of teaching materials in the context where she was working. Although she complained that her school did not have enough ICT resources, hence preventing her from integrating technology in her classes, she also bemoaned the lack of books to support the implementation of the newly approved curriculum of English in TVET schools, which forced her to use ICTs to find teaching materials, especially Internet. At the time of the interview, teachers had access to the curriculum guide, but no materials or official textbooks to implement it, and had to create these themselves. This was because since 2015, Rwanda was in the process of implementing a new “competency-based curriculum” that had to replace the pre-existing “knowledge-based” one (Ndihokubwayo, Habiyaremye, & Rukundo, 2019). So, for example, where the curriculum recommends using audio materials, a teacher would try and find audio materials they deemed appropriate for their class, mostly from YouTube because there were not accessible materials specifically created to implement the curriculum. This lack of ad-hoc materials to implement the curriculum forced Denyse into an online information finding mission to prepare for her lessons. She explained this below.

I also, every day, I use ICT in my teaching because the school where I’m doing the internship there is no books. You have to use Google or Internet so that you can find what to teach. And also go to search for to search through books but mainly it is to go to the Internet because books are a problem. (DE-2)

It is noteworthy that Denyse positioned herself as a regular ICT user in her teaching (“every day, I use ICT in my teaching”) even though this usage was mostly limited to finding materials for classroom use. The student-teacher used her awareness of the context to justify this use of ICT that was motivated by a lack of printed materials in the institution. Because this type of ICT usage was dictated by the basic requirement for teachers to have materials to use in the classroom, taking up such a compelled ICT user position guaranteed Denyse to gain and maintain another position as a competent teacher, given that not having teaching materials would undermine her credibility as a competent teacher.

Overall, Denyse saw the use of ICTs in her teaching of English as necessary even when it was made imperative by factors beyond her control. This acceptance integrated ICT usage in her personal moral order as something to be done. She reinforced this by claiming the compulsory use of ICTs as her chosen “method,” hence positioning herself as not only agentive in her ICT
practices but also as an ICT-friendly practitioner who followed a different path from her peers. This is obvious in the extract below where she contrasted her chosen “method” of using ICT and that of other teachers who did not use ICTs.

Denyse: It depends on what they taught. And it also depends on what they think. Maybe they think their method is good or they may think my method is good, it will depend on what they think.

Interviewer: So, what do you think of their “method” of not using ICT?

Denyse: The method of not using ICT, it is difficult because to explain to students without using ICT, it is not good it is not easy. If you are not using ICT, it is difficult for the teacher to explain to the learners. That is what I think. (DE-3)

Denyse used her ICT “method” to categorise and differentiate herself from other teachers who used a different, non-ICT “method.” She indicated how ICT made a teacher’s life easier, a reference to a positioning of teachers in ICT policies as primary beneficiaries of their ICT integration efforts (see Chapter 5) She self-positioned as a beneficiary of her ICT-using “method” and suggested that other teachers who were not following a similar approach missed out on some opportunities because it was hard to “explain to students without using ICT”. She thus deleted other teachers’ right to use the lack of resources as a justification for their use of a non-ICT “method”, and positioned herself as a more willing ICT user, thereby claiming a moral high ground in her positioning of other teachers and herself. As she later put it “the materials, the ones that I have, also for them, they have them” which underscored her self-investment in ICT usage despite the lack of resources: “they don’t have [access to ICT tools] but they could manage themselves as I did.” (DE-3) Thus, implicitly, Denyse positioned non-ICT using teachers in her placement school as unwilling to use ICTs in their teaching, with a nod at their ICT beliefs or what “they think” as stated in the extract above.

8.3.2 Students’ interests motivate teachers’ ICT use and acceptance

An important aspect of Denyse’s ICT discourse is that ICTs benefited both the teacher and students in various ways. As shown below, she positioned both the teacher and the students as beneficiaries of the use of technology by allowing the former to motivate the latter; and making the process of explaining content easier for the teacher, and thus easier for students to learn what is explained.
[1] ...because if I use those tools, they are...my students could be interested in it, they would follow me...when they are ...you see, some students like movies, when they watch the movies, they get some skills, some knowledge, and if I use those tools, it could help me... in my teaching. But it is a problem because there are no materials. (DE-1)

[2] You can motivate them... I said for the subject of English, the one way of letting the learners to know many things, it is using it [ICT]. In English we know there is pronunciation, there is sentence structure, there are other things, if the students listen and hear what a speaker says, they could repeat it and know it well, and their pronunciation improves. (DE-3)

Denyse’s statements here focused on students’ learning, as justification for envisioning ICT use as “the one way” of motivating learners of English to improve their language skills. This reinforced the student-teacher’s self-positioning as putting her students’ interests first. She used her students’ interest in movies to justify her potential use of videos in her teaching [2]. Importantly, the use of ICTs to motivate students was a replication of Denyse’s own favourite learning experience involving classroom use of audio-visual materials—which she refers to as ICTs. In the following extract, she gleefully recalled one of her teachers’ use of ICTs in teaching listening while she was still a student.

Yes, it was a good experience to me because as I said ...I gained a habit of listening, that is an interest now. When you want to know a language, it is good to make... to do more listening so that you can know how to pronounce or how to spell words and how to formulate a sentence. It helped in spelling words and formulating sentences. (DE-1)

The experience recounted here seemed to underscore the idea that listening with technology increased learner’s motivation and facilitated the development of self-directed learning routines (“I gained a habit of listening”) that led to improved language accuracy and fluency. Denyse used this personal experience and how she “benefited” from it to justify her use of ICTs to motivate and respond to students’ needs during the internship. She reiterated this positioning of her students as beneficiaries of her ICT usage by anticipating well before the internship that she would use ICTs in the interest of her students: “My expectation was to use ICT in my teaching because I was thinking that it will help the students to study well.” (DE-1)
Denyse’s portrayal of technology use as a means for responding to students’ needs allowed her to claim uniqueness in catering for learners’ interests over other language teachers in her placement school. As shown below, she subtly positioned other teachers as less interested in meeting learners’ needs because these other teachers skipped units that required the use of ICTs while she chose not to skip them—a detail that served to point out differences between her and others’ approaches, and therefore their differing digital teacher identities.

... I saw that it is an important chapter [one requiring technology use]. Even to teach them how to connect those devices could help them outside. When they go outside, they could know how to... how they can use those materials.

She later added...

... when you are preparing a lesson, there is a section which is called “cross-cutting issues.” Cross-cutting issues, those are the things that will help them even outside the classes. Even when they have finished their studies. So, it is also important for me to give to them that knowledge because they will use it outside the class. (DE-3)

As shown in the above extracts, Denyse considered her ICT usage in class to go beyond supporting exam-oriented teaching that is implied in her narrative. Instead she claimed her ICT usage would allow students to develop skills they needed in the real world. Given that Denyse admitted that she struggled with the basic use of ICT tools in the classroom, and positioned herself as technologically unskilled and unsupported during the internship, this vision of educational ICT use reflected her desired self as technologically well-prepared for the work environment (internship). In fact, the act of caring about what ICT skills students may learn from her class that would be helpful to them “when they have finished their studies” may be seen as Denyse’s agentive response to what she saw as a “poor” ICT use in her educational experience from which she graduated without the ability to connect the devices she needed to use in her teaching. Here, it is worth recalling that Denyse had received negative feedback from her students on her use of ICTs in the class.

Despite her assertions and proclamations of intentions to use ICTs so as to enhance her student-teachers development of ICT skills needed in the real world, Denyse did not use ICTs regularly during the internship. Although this limited use can be understood along her assertions that the curriculum mandated ICT use only in some chapters of the course, and not others, it nevertheless undercuts her claims about using ICTs to prepare her students for the future. To address the apparent mismatch between her ICT claims and practices, Denyse
suggested that a continued use of ICTs was a potential source of boredom for students who would not enjoy having technology used regularly in their classes, therefore implying that only a limited use of ICTs benefited students.

I didn’t use it regularly because there are some chapters which do not need ICT. I used it when I reached a chapter which needed to use it. I used it maybe from March up to now [end of July] but not every day so that the learner could not be bored. (DE-3)

Through this narrative, Denyse self-positions as a conscientious ICT-using teacher who put her students’ interests first. She therefore presented using ICTs restrictively and selectively as a service to students who must be protected from boredom while at the same time equipped with ICT skills they would need later in their personal and professional lives. Denyse’s establishment of a link between her limited use of ICTs (not using them every day) and her students’ interests (so as not to bore them) appeared to have the purpose of asserting her self-positioning as a learner-centred teacher even in her use of ICTs.

8.3.3 ICT as a disruption

Denyse developed the technology as a disruption storyline by portraying technology use as potentially disruptive of students’ learning, even while ICTs were being used to support students’ learning. The portrayal of ICTs as potentially disruptive put Denyse at the crossroads between her desire to motivate students using ICTs and her need to keep control over her students by limiting their ICT use. In the exchange below, she foregrounded the risk of her students developing too much interest in the use of technology for learning to justify her intended avoidance of frequent classroom ICT use.

Interviewer: And, are you planning to use ICTs in your teaching very often or is that one particular lesson?
Denyse: Me, I think it is only on that course, on that lesson because if I use ICT in all courses or in all lessons, students could say, “teacher, we need...we need...” every day they could ask me to use that materials and it would not be good because they will be following that material without listening to what I’m telling them, what I’m teaching. It is not good to use in all courses.
Interviewer: So, you’re worried that using ICT everyday would distract students?
Denyse: Yes.
Interviewer: How?
Denyse: because when, maybe I’m at adjectives, it is an example. If I use a speaker for some adjectives, students could listen to some speeches without following what I’m
saying. And me also, I will not get time to explain what is an adjective. So, that’s why it is to be used on a particular issue, in particular lessons. (DE-1)

The above extract showed a struggle for the student-teacher to claim a stronger position in the classroom and ensure she could be heard as though she was competing with the technology for students’ attention. Here, students’ anticipated interest in the use of ICTs was seen as a challenge to ICT adoption. The prepositioning of students as intrinsically interested in ICTs could be linked to a generational positioning of younger students as technologically savvy (see Chapter 6) to the extent that their excessive interest could hinder the attainment of learning objectives and completion of the curriculum.

Denyse perceived ICT as disruptive also because it was time-consuming, and therefore disrupting her completion plans. In the extract below, she explained how the use of ICTs could disrupt teaching plans because of the time it took to set up ICTs and start using them. The student-teacher then used this understanding to position teachers who were not using ICTs as justified (a good position) because of the need to cover all the content of the curriculum, and therefore implicitly positioned those who managed to use ICTs—herself included—as outstanding (which is an even better position).

... when you are using ICT, there is some period which is lost. For example, if I have one hour... the period of connecting those materials, it is also lost time. And our school because it is WDA (Workforce Development Authority), we have modules and you have to teach your module very quickly so that you can take another. That’s why I think they don’t use ICT because they want to run their module very quickly. (DE-2)

Here, using technology is credited with the potential to disrupt not only the teacher’s own plans to complete the content but also the student-teacher positions in that the students may want to have more of the technology and less of their teacher. While Denyse seemed to categorise some teachers as complete non-ICT users only interested in completing the module, her self-positioning as someone who decided to use it occasionally despite sharing the rationale behind not using ICTs to ensure no time is lost put her in a unique category of those attempting to overcome the challenge. Her use of the generic “you” to account for what happened when ICTs were used also signalled a positioning of anyone using ICTs with students as a potential victim of ICTs’ time-wasting shortcomings, a move that put her and other teachers in the same category. However, Denyse’s wariness to lose time connecting devices seemed to originate from the lack of resources that compelled teachers to move ICT tools
from a class to another where they were needed. Thus, the positions she created in this storyline were context-sensitive and dependent on ICT access in her placement school.

8.4 Negotiating ICT integration challenges

Denyse’s accounts about ICT integration during the internship showed how she brought together issues of ICT access and skills and motivation to build her approach to ICTs throughout the internship. Her digital teacher identity emerged through her self-portrayal as a technology using teacher in an under resourced context who was not supported by the school and who had gone through a teacher education programme where she claimed the ICT component was “poor”. The extracts presented in this section allow to understand Denyse’s positioning as she grappled with the ICT-related personal and contextual challenges relating to skills and resources needed for technology integration over the internship period.

8.4.1 ICT skills as dependent on personal efforts

Denyse’s confrontation with ICT challenges in her placement school led her to reflect on her self-perception as a technology user, and therefore started questioning the quality of the ICT training she had received in light of the needs and challenges she was facing during the internship. This resulted from critical instances in which the student-teacher, while positioning herself as particularly interested in the integration of ICTs, realised how much she did not know in terms of ICT integration. As shown in the exchange below, Denyse expressed strong dissatisfaction with the training while underscoring the impact of the internship on her learning:

Denyse: The way they trained me to do it [to use ICT], I think it was… I can say it was low because I have improved myself. I think that there is improvement.
Interviewer: And what have you improved? Can you tell me about that improvement?
Denyse: What have I improved? It is to go to search for something alone as I said. In my studies they could put many people on one computer but from this moment I go alone, and I know how can I go there and find the information that I want. Also, I know how I can connect those materials while they didn’t teach me [interviewer: okay...] so I think that is improvement that I got. (DE-2)

The above statement showed Denyse positioning herself as insufficiently trained for the use of ICTs in school. But more importantly, she also positioned herself as an agentive actor independently closing ICT skills and knowledge gaps that should have been filled by her teacher training. This determination to gain desirable ICT skills then allowed her to self-
proclaim victorious: “I have improved myself.” There have been suggestions that “For identities to grow, individuals must be open to the possibility of ‘becoming.’ Without the willingness and the determination to try to become a teacher (or any other identity), then no progress can be made.” (Danielewicz, 2001, p. 183) Similarly, Denyse’s desire to become an educational technology-user drove her efforts to develop skills befitting the ICT-using teacher she aspired to become. She did this by implicitly contrasting the available positions, that of a “low” ICT user which she inherited from her university training and that of an “improved” ICT user which the internship allowed her to claim after developing practical ICT skills. By contrasting these two positions, Denyse was also challenging attempts to position her as well-prepared for ICT integration.

Overall, this self-and other positioning in relation to ICT skills and practice revealed commitment to developing a digital teacher identity appropriate for the challenges in the placement school, thus casting Denyse throughout the internship as “always actively being and becoming.” (Danielewicz, 2001, p. 35). For Denyse, being and becoming an ICT-using teacher also meant self-investment in using personal resources to achieve the needed ICT-supported learning and acquiring practical skills through the process. In fact, while positioning herself as a victim of lack of access to ICT, Denyse also initiated agentive actions to address the lack of resources by bringing some personal devices from home or by personally paying for what she needed in her ICT use at her placement school. In the extract below, for example, Denyse explained how she used her own money to buy internet data needed for teaching during the internship.

…the other challenge is not accessing internet. There was no internet in the school. I had to arrange myself, and you know, getting money for buying some megabytes [Internet data bundles] if I can say, it is a problem. It was another challenge not having, not accessing internet as I want. (DE-3)

Here, by claiming readiness to invest personal resources to use ICTs in her teaching, Denyse was positioning herself as a determined ICT user willing to take on challenges even when they cost her personal resources.

Nevertheless, while Denyse proactively acted upon her need for further ICT skills and acquire resources needed for ICT integration, her actions were influenced by her participation in this study and the resulting desire to be recognised by the researcher in this study as an ICT-
friendly teacher making all the necessary efforts to use ICTs through the acquisition of further ICT skills and tools. She explained this below.

Interviewer: These discussions we’ve been having. Did they influence your use of ICT?

Denyse: Of course they influenced me because if you continue to ask how I’m using it, I also improved using them, using ICT because I said, you will ask me about the challenges that I met. If I didn’t do it, I could not get any challenge. So, I tried to use it and tried to improve my knowledge of using it. So, it is interesting to me. (DE-3)

It is clear from the above exchange that the anticipation of discussing ICT use without having tried it was a deciding factor in Denyse’s investment in ICT use and learning during the internship. This suggests that she did not perceive ICT usage as a duty during her internship until she started considering implications of her participation in the research or see a pedagogical need of ICTs. Denyse’s participation appears to have brought an opportunity to present her desired self to the researcher. This would reflect views about teacher identity that “the process of becoming who we are happens partly through our repeated attempts to represent ourselves to others.” (Danielewicz, 2001, p. 170) While Denyse may not have been content with her ICT skills prior to her participation in the study, her intention to represent herself to the researcher as certain kind of ICT user led her to practice using ICTs, resulting in the acquisition of new ICT skills and changes in her digital teacher identity.

8.4.2 The placement school as an obstruction to ICT use

Denyse considered different school actors to have played an obstructive role in her ICT use efforts during the internship. She positioned these actors as unsupportive of her technology endeavours. Through this characterisation, Denyse self-positioned as the only party interested in ICT usage in her placement school. This claim to uniqueness and the dissociation with the rest of practitioners in the school was epitomised in the following extract where Denyse saw placement school actors as obstacles to her ICT ambitions. The exchange below came after she complained that people at the placement school were not supportive of her attempts to integrate ICTs in her teaching of “speeches” because this was not assessed in national exams.

Interviewer: How did you feel about that?

Denyse: Well, I could not feel well because they don’t want me to achieve what I want to achieve. No advice, no motivation... it is not a good way to help someone to achieve
this goal. There was no motivation, so for me I did what I was supposed to do or what I was able to do. So, this makes students also lose some knowledge or something which is important to them because of losing motivation by the teacher. Interviewer: ...what do you mean by motivation here?
Denyse: Motivation? If the leaders could say, “Wow! This is a good point. This is good.” I could say... I could go and research more knowledge about it. Interviewer: About what?
Denyse: about knowing how to use ICT in a good manner. I could go and research everywhere and for them they could help me to find some tools or some devices. This would have been a motivation, but they didn’t.
Interviewer: And you think that demotivated you?
Denyse: They didn’t... they didn’t motivate me because even not listening to me when I wanted to tell them the challenge that I have or the challenge that I face in using ICT... they could have helped me, but they didn’t. In this I was losing motivation. (DE-3)

Denyse expected her placement school to motivate her in using ICTs as she appeared to have prepositioned them as supportive and interested in the use of ICTs in school. She thus interpreted the perceived unwillingness of her placement school leaders to motivate her as evidence that they did not want her to succeed in the internship, thus effectively positioning them as barriers to her ICT intentions. Therefore, the attempts to integrate ICTs without “advice” or “motivation” was also an act of resistance, defiance, and self-determination to overcome the challenges and prove herself as resilient regardless. Denyse also used her claims to being restricted as a justification for doing only what she was “supposed to do” or “able to do”, which implied that her ICT use during the internship fell short of what she could have done had she been supported and motivated by the school.

Here, Denyse indicated that her students—who became victims of her demotivation—could have otherwise been beneficiaries of her ICT use. This narrative allowed the categorisation of actors into those who are affected by the lack of motivation, i.e. the student-teacher and her students who are both positioned as victims, and the category of those inflicting the restrictions, namely the school administrators and other teachers in the school.

Denyse’s desire for motivation was a claim to be positioned as a legitimate and valued ICT-using teacher in the school. Her expressed desire for school leaders to acknowledge that she was doing a good job with ICTs (“This is good”) shows that Denyse already considered her ICT
practices to be good and therefore positioned herself as a “good” and praiseworthy ICT-using teacher. Her expectations also suggest she had prepositioned school leaders as inherently interested in the use of ICTs, a positioning that is also available for educational actors in ICT in education policy storylines. Therefore, Denyse saw being motivated to use ICTs as a right guaranteed within what appeared as a shared ICT storyline between her and her placement school, that ICT use must be supported and encouraged. It is within this storyline that she interpreted her ICT actions during the internship and saw the provision of her needed motivation and encouragement to use ICTs as the school’s duty. However, the placement school’s failure to fulfil what Denyse perceived to be their duty—i.e. to motivate her—she saw this as a rejection of her self-positioning claims and therefore an obstacle to achieving the position she aspired to in the educational ICT storylines, that is, a good technology-using teacher.

8.5 Concluding notes

Discussions in this chapter highlight Denyse’s self-positioning across different storylines in which she enacted her digital teacher identity. As shown through the different sections, Denyse’s digital teacher identity was mainly shaped by her perceived lack of ICT training, the lack of support experienced during the internship, her lack of resources and her understanding of the relevance of ICTs in the fulfilment of her duties as a teacher and in the future of her students.

With regard to her ICT training, Denyse shows a rather dissatisfied approach to her secondary school teachers and her teacher educators whom she positioned unfavourably for failing to prepare her for the use of ICTs. Her questioning of her educators serves to reinforce her self-identification as poorly trained and, therefore, unable to use ICTs as expected. This is also extended to her internship experience—an extension of the teacher education programme—during which she depicts her internship supervisor as disinterested and unable to appreciate the use of ICTs, and the placement school authorities as obstructive and demotivating rather than supportive of her efforts to use ICTs. With all these negative positionings of others coupled with her othering of those she considers to lack a proper understanding of how to use ICTs, Denyse established her digital teacher identity as an untrained teacher who aspires
to become a technology-using teacher but is obstructed by a lack of support, motivation and resources.

Nevertheless, Denyse also depicts herself as agentive in finding solutions, even though these are put into perspective to reinforce the idea that her limited use of ICTs cannot be blamed on her but on others whose duties are to provide her with resources, training and support. Her ICT use motives are shown to be partly oriented towards receiving praise from supervisors and partly altruistic towards her students whom she reportedly wants to prepare for a better future by equipping them with crosscutting skills that they can use in their employment. This alter intention serves to show herself as a more considerate teacher for her students’ future than her own teachers were. These motives are shown to supersede the perceived requirement to use ICTs expressed in the curriculum or in ICT policies. She uses this perception to represent herself as genuinely interested in ICTs and their educational use, unlike those surrounding her who fail to realise that ICTs ought to be seen as a “tool” rather than a course.

Yet as shown in this chapter, Denyse appears rather driven by a desire for self-presentation and self-preservation as a competent teacher. Her search for recognition is therefore indicative of her perception of ICTs as an important marker of a teacher identity in Rwanda, which is why she depicts herself bringing personal devices to school expecting praise and acknowledgement, the lack of which eventually leads to disappointment. Lastly, Denyse’s digital teacher identity is also shown to have been influenced by her participation in the study, an acknowledgement that highlights this study as a mentoring experience that compensated for her decried lack of mentor and supervisor support and motivation.

In the next chapter, I discuss findings presented in the last four chapters (5, 6, 7, 8). I show how the findings presented in these chapters elucidate the student-teachers’ digital teacher identity development in this under-resourced context where access to resources, mentoring and supervision are almost non-existent in the placement schools.
Chapter 9. Student-teachers' Digital teacher identities: ascription, negotiation and enactment

9.1 Introduction

In this chapter, I integrate insights from different data sources and the existing literature to show how student-teachers negotiated different digital teacher identities and positions. I use the general positioning of teachers in policies and the teacher educators self-positioning and positioning of student-teachers as means for explicating how and why student-teachers self-identified and positioned themselves the way they did. Through this process, I will answer the study's research questions:

1) What ‘digital teacher identities' do policies assign to teachers in Rwanda?
2) How does the positioning of student-teachers affect their enactment of digital teacher identities during the internship?
3) How do student-teachers negotiate their digital teacher identities during their teaching internship in an under-resourced context?

9.2. Digital teacher identities in Rwandan educational ICT policies

The first research question in this study sought to understand the digital teacher identities that educational ICT policies and programmes assigned to teachers. The question was answered by analysing educational ICT policies and programmes to identify ICT-related positions, rights and duties assigned to teachers as a way of determining the kind of technology-using educators they should (not) become. Given that these policy documents do not assign a “special status” to student-teachers, in my analysis, I used positions, rights and duties assigned to teachers in these policies as equally applicable to student-teachers during their teaching internship where they fulfil the duties of a teacher. Findings of this study show that policies assigned three main digital teacher identities to the teachers: teachers as backbone of education and its ICT adoption, teachers as deficient in ICT knowledge and skills; and teachers as dutybound educational ICT users.
The three different digital teacher identities are interconnected and interdependent (see Figure 7). For instance, teachers are dutybound educational ICT users because they are the backbone of the education system. They are also assigned deficiency digital teacher identities as a means for their need to change and fulfil their other assigned identities. In the next sections, I will discuss each of the identities and their potential influence of student-teachers’ positioning and digital teacher identity development.

9.2.1 Teachers’ deficiency digital teacher identities

As key players in an educational system undergoing transformation that is partly fuelled by continued digitisation, teachers’ ICT knowledge and skills are an important item in educational ICT policies. The analysed documents identified teachers as lacking the necessary skills to drive the digital transformation agenda in education and the society at large. This conception was expressed by assigning teachers different positions regarding what ICT skills, knowledge, attitudes, and abilities they needed to fulfil their duties within the overall ICT integration goals. For example, the ICT in education policy lamented a lack of “trained teachers” and “awareness of ICT” as well as educational institutions’ “lack of an ICT culture” and an understanding of the “possible applications and benefits” of ICTs in education. In this regard, policies assigned to practicing teachers what can be called a deficiency digital teacher identity. Here, they were not only seen as lacking—and therefore in need of developing—knowledge and skills of ICT tools, they also needed to adopt an “ICT culture”. The admission that teachers needed to adopt an ICT culture was also a criticism of such teachers who did
not have the “ICT culture” they ought to have. Given that the concept of “culture” encompasses a group, this suggests a generalised view of teachers in the policy as deficient, at least in their embodiment of an ICT culture that would lead to a general integration of ICTs in education. This view of teacher relates to findings from ICT policy analysis in Australia which found that in these policies “teachers are depicted as ‘lagging behind’, both in acquiring ICT skills and in using them in their classroom practice.” (Jordan, 2011, p. 427)

By calling for the adoption of an “ICT culture” educational ICT policies implied that even teacher educators lacked this “culture”, given the implied collective/group in this expression. These policies also acknowledge that teachers’ digital teacher identities could change because of the “ICT culture” surrounding them, among other things. In fact, one of the documents categorised practicing teachers at different levels of a learning trajectory once they embarked on training to reduce their technological deficiencies (a potential sign of their embracement of an ICT culture). They were then identified as basic, intermediate, or advanced educational ICT users. This skills-based categorisation and identification determined what a teacher can do at each category and encouraged teachers to undertake training to become certified technology-using teachers identifiable on the recognised trajectory. This is consistent with the finding that “[t]o facilitate and improve teacher ICT use, policies commonly advocate the need for professional development.” (Jordan, 2011, p. 428). The potential to be identified and certified at either level could therefore be intended to motivate practicing teachers’ commitment to their technological upskilling. It availed to them an opportunity to become a different kind of teacher: a certified technology-using teacher.

However, because this categorisation applied to in-service teachers, student-teachers would have to be fully employed in school for the training and resulting categorisations to apply to them. This therefore suggests that at the time of starting the internship, student-teachers are positioned as lacking in ICT skills and abilities, at least from an ICT certification perspective. This is because at that stage of their teaching career, they were yet to embark on a training trajectory that would remedy their technological deficiencies and thus enhance their positioning, rights as well as duties in the system.

Essentially, the deficiency digital teacher identity in policy documents relied on two assumptions about teachers’ technological competence: (1) that teachers needed to become
knowledgeable about ICTs (i.e., develop awareness of and ability to use identified ICT tools) and (2) that teachers needed to develop knowledge of the pedagogical application of technology (i.e., the ability to use ICT tools for a pedagogical goal). The ascription of a deficiency digital teacher identity through various positions aimed at inciting them to acquire the skills they needed to serve as the critical agents for ICT adoption. This acquisition of such skills and therefore a new identity as either basic, intermediate, or advanced technology-using teachers would then grant them positions with new rights and duties. For example, the kind, purpose, and complexity of tools teachers are expected to use evolves as they move on the trajectory, as well as the expectations and duties for them to use ICTs to enhance learning in their subjects.

All in all, the representation of teachers in Rwandan ICT policies as lacking ICT skills was nevertheless a positioning aimed at encouraging them to seek a more desirable position. Thus, the deficiency digital teacher identity assigned to teachers through these policies seemed to be aimed at driving the teachers’ antipathy for a lack of technological competence and therefore driving their aspiration to become technologically competent. This is why, despite teachers being characterised as lacking the necessary ICT skills, the policies still positioned them as “key to the successful integration of ICT in education”. Thus, in accordance with previous ICT policies analysis findings, ICT policies in Rwanda carried an instrumental view of teachers as the key to ICT adoption that they “achieved by representing ICT as ‘empowering’ teachers to act” (Jordan, 2011, p. 428). The anticipated desirability of this position and others discussed below was used in policies to show technologically unskilled teachers the kind of desirable positions ICT skills would enable them to gain.

9.2.2 Teachers as the backbone of the education sector

The analysis of the ICT-related discourses in the policies and interviews and the storylines they carry show a subtle, deliberate use of language to motivate ICT usage among educational practitioners. This was particularly obvious in the enumerations of gains teachers and their students would make from ICT use. Because of this, within the many storylines that intersect in these discourses, teachers were not simply positioned as potential beneficiaries of their ICT practices. Instead, they were shown desirable positions that they would only be able to claim if they became technology-using teachers. Here, teachers are not directly given these
positions but are made aware that they are available for them to take up. Essentially, educational ICT policies give teachers options for “possible selves” presented in the form of various positions that are only available for technology-using teachers. For example, without directly mentioning the large classes and heavy workloads of teachers in Rwanda, ICT policies remind teachers that using “ICTs can simplify the use of regular assessments” and “facilitate the teachers to prepare lessons”. These potential benefits enable teachers to imagine themselves becoming different kinds of teachers, ones who are less overloaded by lesson preparation and students’ assessments. This prompt to see the possibility of becoming a desirable version of themselves through the enablement of ICT use has therefore the illocutionary force of convincing teachers to claim new positions in the ICT skills storyline. ICT policies achieve this by creating a “certain set of possible worlds” (Kissine, 2009) in which ICT-using teachers are promised better working conditions and the possibility of becoming a desirable version of themselves through the enablement of ICT use while non-users can either expect the opposite or the status-quo at best.

The underlying motives for this positioning of teachers is in fact connected to their critical positioning as “the backbone of the education system”. They cannot successfully claim this position unless they are technologically competent because policies see ICT as “the heart of the entire education system” (MINEDUC, 2003, p. 8). This shows how, even when favourably positioned in the ICT policies, this is based on expectations that by pursuing personally desirable positioning, they would be fulfilling the policymaker’s desire to create an environment where teachers would use “ICTs as a tool to improve quality of education in all subjects at all levels”, thereby making teachers what policies describe as the “main instrument” for educational change.

One of the shortcomings of this kind of drive for ICT use as a self-positioning move is that it disconnects technology and pedagogy in the educators’ self-perception as technology-using practitioners. Researchers have observed that possible selves “exert a motivational influence by providing incentive to act in order to achieve a hoped-for possible self, or avoid realizing a feared possible self.”(Hamman et al., 2013, p. 309) Similarly, policies subtly incentivised teachers to become educational technology users by mirroring for them their “possible selves”, i.e. the kind of recognition they would gain from becoming classroom ICT users. For instance, ICT competencies, among other abilities, are represented as potentially enhancing
“the image and status of the teacher as a qualified, dedicated expert, and a vital engine of nation building”, thus essentially making the teacher the “backbone of the education system.”

The awareness of these positioning benefits from ICT use was important to student-teachers’ digital teacher identity development as they sought to negotiate an identity as fully-fledged competent teachers during the internship. This is because there must be motives for change in teacher’s identity, such as satisfying needs of agency or fulfilling their desire to meet social expectations (Swann & Bosson, 2008; Vähäsantanen, 2015). Accordingly, both student-teachers in this study (Dominic and Denyse) attuned their ICT use during the internship based on their potential to be recognised as technologically competent. This was an indication that the student-teachers needed to see benefits to adopt the use of ICTs in the classroom which are potentially more challenging because of both its novelty and its implications for power relations in the classroom (Vie, 2008). The anticipation that they would gain favourable positions was therefore a strong enough incentive to lead Denyse for example to bring personal devices from home for use in the classroom.

The alternative to achieving recognition as an educational ICT user was a risk of negative positioning. In fact, the focus on the teachers’ possible selves as educational ICT users also implied that they had a cost to pay for not adopting ICTs. As shown above, encouraging teachers to use ICTs because it would reduce their workload implicitly suggests that not using ICTs leaves the teacher with a heavy workload that could be cut down by an ICT adoption. These potential digital teacher selves availed in policies for teachers, therefore, implicitly invited them to avoid unfavourable alternatives by answering the critical identity question: “Who do I want to be in the future?” (Swennen, Jones, & Volman, 2010, p. 134). The answer has a particular significance for student-teachers doing an internship.

ICT policies used different speech acts (directives, commissives and assertives) (Kissine, 2009; Searle, 1976) in their push for teachers to develop ICT skills, start using ICTs, and initiate ICT-mediated learner-centred practices in their teaching. Policies’ use of illocutionary acts in mirroring teachers’ favourable and unfavourable positioning appeared to draw from the observation that “what type of teacher one hopes to be in the future” implies a consideration of “motivational incentives and avoidances based on reaching the desired future self” (Hamman et al., 2013, p. 309). For instance, Denyse reported making efforts to use ICTs
because she wanted to prove to her visiting teacher educators during the internship that she had gained important ICT skills. Her self-projection into the future and how she wanted to appear to her teacher educators shows the educational use of ICT as a means to become a desired future self, i.e. recognised as competent by her teacher educators, not the backbone of the education sector as suggested in the policies.

9.2.3 Teachers as dutybound educational ICT users

Findings of this study indicate that policies assigned to teachers the identity of dutybound technology-using teachers. This was achieved by creating for them positions that they could not reject, and these remain in conformity with the general educational goals and principles that the system wanted to achieve. For example, the depiction of ICT as a tool for providing “educational opportunities to all Rwandan citizens regardless of gender, age, geographical location” has a particular resonance for teachers working in a country where less than three decades ago, the educational system was being used to divide, marginalise and discriminate against certain groups (Karangwa, 2013; Nzabalirwa, 2009; Rubagiza et al., 2016). For a teacher familiar with this contextual and historical background, rejecting the assigned identity of a dutybound educational ICT user as part of the process of addressing of historical injustices could, even unintentionally, imply a rejection of the country’s desire to uproot such discriminatory practices from the education sector and the country in general.

Thus, given that teacher identity develops within a context (Beauchamp & Thomas, 2009), the awareness of socio-historical background of their educational contexts and its ambitions would potentially explain this study’s participants’ expression of their unwavering “commitment” to ICT use in teaching, even though their own accounts of their practice told a different story. However, their claimed acceptance of their assigned identity as ICT users was enough to represent them in a particular way considered acceptable in their context (Gee, 2000). In other words, these educators enacted, through their discourse, what they perceived to be an acceptable in-context digital teacher identity.

One reason for their need to use discourse in such a way is also related to the kind of discourse used in the policies themselves. The language used in policy documents (e.g., “student must use available ICT”; “teachers need to incorporate the use of technology in their lessons”) highlight the compulsory nature of teachers using ICTs. This use of directives (Searle, 1976)
underscore that it is a teachers’ duty to become educational technology users, in accordance with their positioning as key actors in the country’s educational system. Therefore, through the use of assertive illocutionary acts (Kissine, 2009), teachers expressed and at times asserted their compliance with these obligations and fulfilment of their policy-assigned duties of training and “moulding” the next generation of students by embracing ICTs. For these educators, a verbal expression of commitment to ICT use was an easier—if not an equally valued—expression of their ICT commitment given the under-resourced nature of the educational context.

The analysis of policies in this study revealed that one of the critical aspects of adopting their dutybound educational ICT user identity was the adoption of what policies vaguely called an “ICT culture”, which some teacher educators (e.g. Maximillian) referred to as ICT “mind-set”. This requirement to adopt an ICT culture reflected existing literature on teachers’ identity development. Scholars have considered it a “fact that teachers need to have particular mind-sets, attitudes and motivations to lead them to engage in professional learning” (Larsen & Allen, 2021, p. 28). Therefore, it is not surprising that policies called for educators’ adoption of new “ICT culture” in order to effectively embrace ICT adoption because the rights of technology-using teachers expressed in educational ICT policies are hinged on their embracement of this change.

What was surprising in the findings is that while both policies and teacher educators expressed a need for a change in how educators related to the use of ICTs in education, they used different but potent expressions (ICT culture in policies and ICT mind-set for teacher educators) that redefined who needed changing attitudes and whose duty it was to make that happen. Here, in accordance with observations that discourse ‘frames, shapes or manipulates’ social reality (Slocum-Bradley, 2008, p. 211) analysed educational policy discourses seek to create a reality in which the use of ICTs is commonplace both in teachers’ personal and professional endeavours. They express this intention through their call for the adoption of an “ICT culture” in which teachers act as role models for ICT adoption and enacted digital teacher identities expressed through metaphorical expressions such as “backbone”, “heart”, “key”, “vital engine” and “instruments” for ICT adoption and national development. From this viewpoint, the issue of ICT culture adoption could be institutional or even societal, given that a culture belongs to a group (educators, teachers in general), unlike a mind-set that
can be individual. Here, student-teachers’ potential to become educational ICT users is therefore also dependent on them being educated in an ‘ICT-cultured’ environment which could shape their digital teacher identities and how they meet contextual expectations to use ICTs (Vähäsantanen, 2015).

In contrast, despite the potential of adopting an “ICT culture” foreseen by policies in facilitating teachers’ becoming educational technology users, some teacher educators redefined the scope of the needed ICT culture adoption by making it a personal duty for individual teachers. This reinterpretation was expressed in the concept of “mind-set” instead of “ICT-culture”, thereby moving the responsibility from the collective identification implied in the ‘ICT culture’ to the individual implied in the ‘mind-set’. The individualisation of the need for change of mind-set shifts the blame to individual teachers—i.e. the teacher educators’ current and former teacher trainees—whose (negative) ICT mind-set prevented from adopting ICTs and taking up positions and identities assigned to them in policies. Given that some teacher educators acknowledged that there was “pressure” to use ICTs, the reinterpretation of what policies meant—by shifting from ICT culture to ICT mind-set—can be seen as an attempt to redirect such pressure to other actors, leaving teacher educators unhinged. This reinterpretation of this ICT policy statement is consistent with other researchers’ observations that policies’ meaning often change from its formulation to its implementation (Ulmer, 2016). Its uniqueness lies in the fact that it deprives student-teachers of the right to claim systemic factors as causes for not using ICTs, and therefore not adopting an ICT culture.

This is potentially why teacher educators focussed on factors beyond their influence, like a lack of access to ICT resources in schools—and not a lack of training or skills—as the main cause for student-teachers not using ICTs, even though both student-teachers (Denyse and Dominic) claimed have received minimal, if any ICT training from their teacher educators. Indeed, practices such as role-modelling ICT use for student-teachers (which student-teachers in this study claimed to be absent from their training) could then be accounted for at an individual teacher educator’s mind-set level rather than being treated as a programme “culture” issue that needed systemic efforts to be addressed. For example, Maximillian depicted himself as more capable of modelling ICT practices for his students because he had trained to be a teacher. With this claim, he implicitly depicted himself as more ICT-minded
than his fellow teacher educators, without questioning the “ICT culture” of the institution to which they all belonged.

Besides the ICT culture, the mandatory use of ICTs was also subject to different interpretations which affected how educators enacted their digital teacher identities. One interesting finding from the data related to the pedagogical implications of the way educators sought to enact their assigned identity as dutybound educational ICT users. On the teacher education programme for instance, teacher educators responded to the requirement to use ICTs by paying more attention to their need for compliance with the institution’s directives because a failure to comply would have had a negative impact on their image and identity as competent teacher educators. Thus, in response to their institution’s policy requirement for all teacher educators to use Moodle in their course units, teacher educators uploaded their teaching content long after they had completed their course but before the institutional deadline for verifying their compliance (Gerard), or simply uploaded the materials but never enrolled students (Irene and Gerard). These examples show a purposeful reinterpretation of both national and institutional policies (adopting an ICT culture for the former and using Moodle for the latter) to allow the educator to claim for themselves a favourable position. Both Gerard and Irene did not seem to connect their use of Moodle and supporting learning on their course units, which may have been their institution’s intention. Thus, while they were officially using Moodle and therefore compliant with the institutional requirements—which enabled them to gain or retain favourable positioning within their institution—their ICT use lacked a pedagogical goal.

All in all, these ICT practices show that these educators acted upon the requirement to use ICTs in their educational duties primarily as a means to gain or maintain a favourable position. This finding is not unique. In her study of multimedia teachers in rural Bangladesh, Ivy (2020) described a multimedia teacher—Aparanjita—for whom the purpose of her PowerPoint use had become exclusively focussed on attaining social validation, appreciation and the renegotiation of a new positioning from that of a “villager” to that of an award-winning, recognised multimedia teacher. Thus, student-teachers training in a system where teacher educators engage in a post hoc use of ICTs to meet their contractual obligation—not pedagogical goals—would have therefore unconsciously picked up such approaches to ICT use and integrated them in their developing digital teacher identities. This is because teacher
identities are shaped by their contexts and professional networks (Morrison, 2013), and that teacher educators constitute their student-teachers’ models of professionalism.

In the next section, I discuss specific positions assigned to student-teachers in relation to their ICT skills, abilities and practices and how these affected their digital teacher identity enactment during the internship.

9.2.4 Concluding notes

In answering the first research question of this study, findings show that educational ICT policies centrally assign teachers three main types of identities based on ICT skills (deficiency digital teacher identities), contribution to the adoption of ICTs in the system (teachers as backbone) and rights and duties in the ICT adoption process (dutybound educational ICT users). Although these identities are not in themselves new since research shows that policies ascribe, influence and define teacher identities (Day et al., 2006; Jordan, 2011), the main contribution to the existing knowledge in the way policies assign identities to educational actors is the representation of these identities as aspirational.

I argue that these identities were aspirational because of the under-resourced and post-Genocide nature of the context in which they were to be developed and enacted. Given that teachers would not become educational ICT users without having access to ICTs, policies, therefore, ascribed to teachers idealised digital teacher identities, which indicate a desirable kind of “teacher-to-become” in light of the country’s existing and future socio-economic needs. This future-oriented vision, therefore, sometimes warranted ascribing to teachers a digital teacher identity that highlights their deficiencies in using ICTs so as to incite them to see overcoming them as an integral part of their imagined future selves. This finding shows a policy approach to developing teachers’ ICT competencies by potentially arousing emotions of shame and desire to change through parading teachers’ deficiencies (Zembylas, 2003a). This goes counter to suggestions to move away from seeing or anticipating teachers’ ICT competencies through “deficit analyses of their expertise” (Burnett, 2011) and not see teachers as “deficient in any way” (European Commission, 2015). Overall, this study contributes to an understanding of digital teacher identities development in under-resourced contexts whereby policies assign to teachers identities that cannot be enacted in the present for lack of resources.
9.3 Student-teacher positioning and digital teacher identity enactment

The second question of this study sought to elucidate issues around student-teachers’ positioning by their teacher educators and its impact on student-teachers’ digital teacher identity development.

The assumptions underpinning the analysis to answer this question was that student-teachers enacted a digital teacher identity by claiming, rejecting, or being assigned positions in educational ICT storylines at least partly based on their educational experiences and interactions with teacher educators. By claiming certain positions, student-teachers identified themselves as certain kinds of technology-using teachers deserving the rights and duties afforded to occupants of those positions. By rejecting an assigned position—an external recognition of them as a particular kind of technology-using teachers—they also showed being a different kind of technology-using teacher, different from one whose rights and duties are specified in the assigned position. The resulting student-teachers’ digital teacher identity shaped by a combination of their self-positioning and being positioned by others reminisce the understanding of identity as being “both inside the teacher and outside in the social, material and technological world.” (Barkhuizen, 2016a, p. 4)

This will be the focus of the current section, starting with the next sub-section where a focus is put on ICT training and its positioning impact.

9.3.1 Dissatisfaction with ICT training as foundation for claims of uniqueness

It has been suggested that an important part of a beginning teachers’ work is to develop “an identity as a professional learner” (Larsen & Allen, 2021, p. 27). However, what this learner identity allows teachers to “learn” depends on what experiences they have and how they interpret them. In this regard, the ICT learning of the two student-teachers in this study was reflected not only in their formal ICT training but also through their purposeful decisions to undertake (or not) ICT practices and skills development activities.

These decisions—with all their identity implications—were made as the student-teachers’ response to contextual factors and their perceived positioning needs regarding the use of ICTs. For example, Dominic started the internship, coming from a teacher education programme in which he reported teacher educators seeing student-teachers who were using
their laptops in class as distracted and potentially disruptive. Despite complaining about this seemingly unfair positioning, he nevertheless positioned his own students as disruptive with ICTs even before he had tried to use any ICTs with those students. Dominic’s replication of his teacher educators’ positioning of technology-using students seemed to suggest that he had integrated into his digital teacher identity this kind of perspective because it was associated with maintaining full control of the class.

In fact, research suggests that student-teachers do not simply need to “see and understand” what they are taught on the teacher education programme but also need to “experience what particular forms of teaching actually do to them as learners.” (Kelchtermans, 2009) Dominic had observed his teacher educators successfully establish classroom control by banning student-teachers from using personal devices because of their alleged disruptive tendencies. He used this as his first recourse once he anticipated the risk of disruption in his own class as a teacher. He later learned from his classroom experience that his students would not be disruptive with ICTs unless they were not kept busy. This new learning allowed him to position his students more favourably and eventually turned him into a different ICT-using teacher from what he had been at the beginning. This highlights the importance of classroom experience and especially the internship in shaping preservice teachers’ digital teacher identity.

Dominic’s account of his re-positioning of students after his personal experience can be seen as an attempt to claim ownership of his “ICT practices” and therefore a criticism of his ICT training on the language teacher education programme. By highlighting that he had to move away from his earlier practices because they led to an unfair positioning of students, he implicitly expressed his dissatisfaction with the lack of ICT role-modelling—except the classroom ban on using personal devices—which could have enabled him to realise before the internship that students’ use of ICTs in the classroom could be non-disruptive.

His implicit criticism finds an echo in some of his teacher educators’ (Gerard, Irene) own admissions that student-teachers were not supported in their learning of how to use ICTs for educational purposes. These teacher educators rejected any duty to support their student-teachers becoming educational ICT users because they taught subject-specific courses, not ICT. The teacher educators’ approach in this study was reminiscent of the ICT training model
that is common in under-resourced contexts where ICTs are mainly taught as a subject and never integrated in the overall teacher education programme (Agyei, 2020). The rejection to act as educational technology role models for their student-teachers not only denied student-teachers rights to an ICT-rich environment mandated in policies, it also made them less likely to become educational technology users themselves. This interpretation aligns with Tondeur et al.’s (2012) observation that “possible reasons for the lack of knowledge, skills, and resources with regards to technology may be due, in part, to a lack of teacher educators as role models using technology.” (p.138).

Consequently, both student-teachers later used the lack of teacher educators’ ICT role modelling to position themselves as unique for becoming ICT users through their own efforts. This is where Dominic’s accounts of his reinterpretation of classroom ICT use and students’ disruption becomes a self-positioning move because he used it to highlight that he came to this change by himself. Similarly, Denyse’s criticism of her teacher educators failing to see ICT as a tool rather than a “subject” supported her self-positioning as untrained to use ICTs in teaching her listening lessons, and yet doing so during the internship. While the purpose of her criticism has self-positioning motives, it is also consistent with research in more affluent contexts where student-teachers described their ICT training as “too detached from the rest of subjects” (Instefjord, 2015, p. 320). This contrasts with observations that a rich ‘pedagogical integration of technology’ in teacher education is critical for student-teachers’ becoming competent ICT users in their own classrooms (Tondeur et al., 2012, p. 142).

All in all, student-teachers’ acknowledgement of their poor ICT training was not an admission of lacking ICT skills but rather an intentional attempt to magnify the scope of their ability to independently acquire the ICT skills they needed in their teaching. Thus, their accounts of poor ICT training were valuable artefacts they used to position themselves more favourably by highlighting how much ICT skills they had gained from very little input from their teacher education. This is what gave essence to both Dominic’s claims to uniqueness (because of his supposed superior ICT skills in comparison to colleagues) and Denyse’s assertions to being unskilled but undeterred from using ICTs after a failed classroom attempt to use videos in her classroom. In fact, these student-teachers’ own account reinforced their claims that they had learned to use ICTs and had improved their skills without the help from their teacher educators. They thus portrayed themselves to be what has been referred to as “industrious
self-improvers...striving to improve one’s own performance” (Castañeda & Selwyn, 2018, p. 5)

9.3.2 ICT training expectations and digital teacher identity enactment

Researchers have argued that the technology training of preservice teachers is both a ‘systematic’ and ‘systemic’ endeavour (Tondeur et al., 2012, p. 140). The fact that even teacher educators did not expect their student-teachers to be able to use ICTs in their placement school—for different reasons—alludes to a kind of “systemic” approach taken towards student-teachers’ ICT using potentials and their positioning as unlikely to use ICTs in their teaching. In their awareness of the systemic expectations and interpretations—and despite the pro-ICT discourse—student-teachers were also convinced that they would not be able to use ICTs and that they would not be blamed for it because it was not their “fault” that they couldn’t. It is because of looking at their ICT use from this vantage point, student-teachers became expectant of praise and commendation for any ICT use efforts made during the internship even when this use was trivial. They perceived their use of audio-visual materials in the classroom (Denyse) or giving students digital copies of their digital notes (Dominic) to exceed expectations, therefore granting them the rights to be positioned as unique. In fact, both student-teachers emphasised their uniqueness of their ICT usage by claiming that they were the “first” to introduce classroom ICT use to their students.

It has been observed that teacher education often fails to prepare student-teachers for the challenges they are going to face in their teaching (Murris, 2016). This study’s findings show that teacher educators felt no urge to model ICT practices for their students because this duty was supposedly incumbent on others, or because student-teachers were positioned as technologically competent already or unable to have access to ICTs in schools. This shows a direct link between how teacher educators positioned themselves and their student-teachers and the potential to support student-teachers’ development of a digital teacher identity. In fact, the digital teacher identity student-teachers developed on their teacher education programme was not only built on limited practical ICT knowledge and skills, it was also shaped by expectations that student-teachers would not be able to use ICTs in their under-resourced internship contexts. Consequently, student-teachers went into the teaching internship considering the use of ICTs in their classrooms as the ultimate accomplishment that would
mark them as unique and therefore grant them a favourable positioning, regardless of the pedagogical value of their ICT use.

9.3.3 The imitation game: student-teachers positioning their students as positioned by teacher educators.

Research has shown that teachers are likely to start teaching as they were taught, thereby replicating their own experience before becoming confident enough to chart their own way (Bolitho, 2016). Accordingly, findings in this study show that teacher educators influenced how the student-teachers enacted their digital teacher identities. This influence appeared through teacher educators’ ICT-related practices (or lack thereof) that the student-teachers replicated during their internship teaching. Essentially, student-teachers used their awareness of the positioning particular ICT practices afforded their teacher educators and used them as a reference point anytime their positioning in the classroom needed to be affirmed or adapted.

For example, Denyse brought some of the tools she needed from home, an act reminiscent of her teacher educators who also bought personal materials to use in their teaching. Dominic was keen on using projectors which had been the main technology used on the programme. He was equally distrustful of his students’ use of ICTs, treating them in the same way his teacher educators treated student-teachers as potentially disruptive with ICTs. Yet, he had not experienced this kind of feared disruption and reportedly disagreed with the teacher educators on this. Relatedly, like their teacher educators, both student-teachers constantly alluded to institutional challenges—e.g. lack of access to internet—as causes for their inability to use ICTs effectively. Whether conscious or unconscious, ICT-related positions availed from educational experiences had become “default options” for student-teachers in their endeavours to integrate ICTs in their internship teaching (Tomlinson, 1999). Previous research has already shown that “past learning experiences” serve as “professional basis of identity (and image) construction and negotiation” (Duff & Uchida, 1997, p. 468). Thus, even while criticising their teacher educators as lacking the necessary skills for ICT use themselves (Denyse) or unfairly mistrusting students’ ability to multitask with ICTs (Dominic) the student-teachers still replicated some of these ICT practices. This underscores previous research that has stressed the criticality of the teaching examples student-teachers are exposed to and their potential in shaping their teacher identities (Chere-Masopha, 2018; Howard, Tondeur, Ma, &
Yang, 2021). Therefore, it is not surprising that student-teachers in this study may have clung onto experienced practices because these were the only references for ICT usage that they had as starting point for negotiating a digital teacher identity.

9.3.4 ICT access challenges as a self-positioning opportunity

In their own ways, both Dominic and Denyse used the lack of resources to claim positioning as ICT-friendly and ICT-using teachers while rejecting their positioning as unable to access and use ICTs in their teaching. For example, Dominic took advantage of the existing bring-your-own-device policy in his placement school and started to encourage parents to buy laptops for his students. He then used this engagement to position himself as an advocate for ICT use in teaching. Similarly, Denyse took the initiative to bring speakers from home to use in her class and used this as proof that, unlike everyone else in her placement school, she was committed to expose her students to ICT use as a cross-cutting skill relevant to their future.

Previous research has shown that teachers in developing countries who face ICT access challenges on a daily basis respond to them in two ways: either by becoming “active” in using the available resources to limit the impact of the lack of access or by becoming “passive” and accepting the impact of the contextual limitations on their pedagogy (Shah & Hodgson, 2014). Dominic and Denyse responded to their ICT access challenges by taking the “active” approach, using either their own resources or the school policies to overcome ICT access limitations. Motteram and Dawson (2019) found in their study that because teachers in under-resourced contexts lack the “luxury” of having technology resources in their classrooms, they “potentially use their personal equipment for teaching purposes” (p.10). Denyse reflected this in her own strategy by bringing personal devices from home.

Although researchers acknowledge that contextual technology limitations would “damage teaching experiences of using learning technology” (Shah & Hodgson, 2014, p. 277), the expected lack of ICTs in both student-teachers’ internship had limited impact on their teaching plans. Importantly though, the lack of access to ICTs in their respective institutions allowed student-teachers and teacher educators in this study to portray themselves positively and claim a digital teacher identity considered desirable in their teaching contexts. On the one hand, the lack of technology access served as a tool for student-teachers (Denyse and Dominic) to claim positions, assert rights, reject duties, and highlight their uniqueness in
embracing ICT integration practices. From unfavourable positions (poorly trained, unsupported, unskilled in ICT use, etc.), they enacted new digital teacher identities by claiming positions such as committed and willing to use ICTs in teaching despite their limited access to ICTs.

On the other hand, the generally accepted lack of access to ICTs enabled teacher educators to reject duties to model ICT practices or provide feedback on student-teachers’ ICT practices during the internship. This justificatory use of limited ICT access enabled the educators to challenge any potential positioning as failing to fulfil their ICT duties towards student-teachers on their programme. The epitome of this use of ICT access as a passe-partout excuse for not using ICTs appeared in the expression “not their fault” used by both student-teachers and teacher educators to disclaim any responsibility in their failure to use ICTs as expected or required. Given that all these educators were based in an under-resourced context, the limited ICT access argument was a believable justification to reject any unfavourable ICT-related positioning. Instead, it became the ultimate self-positioning tool as technologically competent regardless of having any ICT practices to support the educators’ ICT skills claims.

9.3.5 Student-teachers’ ICT skills assessment practices and their implications.

As discussed in the previous section, teacher educators considered student-teachers unable to use ICTs because of a lack of resources. As a result, they overlooked giving student-teachers feedback on their ICT usage during the internship. This inattention to ICT usage contrasted with their approach to other teacher competencies such as classroom management or keeping lesson plans. This implicitly communicated to the student-teachers that the use of ICTs was inconsequential to their success as language teachers, which in turn influenced the kind of digital teacher identity student-teachers developed during the internship.

Research has shown that the internship is a critical phase in the development of teacher identity because it allows student-teachers to combine theory and practice and therefore exposes them to the ‘practicalities’ of context-based teaching (Ssentamu-Namubiru, 2010; Trent, 2018; Yazan, 2017). Thus, the teacher educators’ approach to ICT assessment was surprising in four ways. First, it sidestepped educational ICT policies that present ICT usage in schools as the “heart” of the education sector, with a “sense of certainty” and “matter-of-fact tone” (Jordan, 2011). Secondly, it was in dissonance with research that has identified
assessing student-teachers’ ICT use as critical to their becoming future educational technology users (Tondeur et al., 2012). Thirdly, it contradicted the teacher educators’ own professed awareness of the importance of ICTs in teaching. Lastly, it disappointed student-teachers’ rightful expectations to receive feedback on all aspects of their internship, including the use of ICTs. For example, Denyse expected feedback on her ICT use because she foresaw it as a recognition of her self-positioning as a successful intern.

Denyse and Dominic claimed uniqueness in their placement schools for using ICTs with students in the classroom. But they also needed their teacher educators’ expert feedback as an external validation of their self-positioning. Besides, teacher educators’ assessment of ICT usage during the internship conveyed to student-teachers the kind of teachers they were expected to become. This is because, through the assessment of the internship, teacher educators aim to “ascertain whether students on the practicum are doing the right thing” (Ssentamu-Namubiru, 2010, p. 307). For a student-teacher like Denyse who expected her teacher educators to praise her ICT use efforts, becoming a technology-using teacher was an identity-affirming expectation. The visiting teacher educator’s failure to discuss ICT use led her to a new understanding that she was not required to become a technology-using teacher, just the opposite of her expectation to receive encouraging feedback and recognition for her effortful use of ICTs in class with devices brought from home. The failed fulfilment of this expectation deprived her of the impetus to entertain a self-image and digital teacher identity as a competent ICT-using teacher. It also delegitimised her claims for recognition and favourable positioning as a self-trained technology using teacher.

Researchers have observed that “benefits obtained after using technology” influence teachers’ beliefs in using ICTs and therefore impact on the integration of these beliefs in their teacher identities (Rosdi, Khalid, & Rasul, 2020). In fact, the use of ICTs may become an integral part of a teacher identity if such use leads to desirable gains in their context such as favourable positions or recognition. This is especially the case for student-teachers like Denyse who considered the lack of ICT access as a challenge they could overcome by bringing their own devices to class in hope for a favourable positioning. A lack of feedback would also likely setback the development of the digital teacher identity such feedback would have reinforced.
Thus, Denyse’s longing for—and not receiving—feedback/recognition for her ICT usage was an identity-altering moment because feedback plays an important role in student-teachers’ self-efficacy beliefs and development of an identity as a teacher (Akkuzu, 2014; Copland, 2010; Izadinia, 2015). Her later claims that she stopped making efforts to use ICTs because neither her school nor her teacher educators were interested echoed earlier observations that “identity formation is a process of practical knowledge-building characterized by an ongoing integration of what is individually and collectively seen as relevant to teaching.” (Beijaard et al., 2004).

According to Kelchtermans (2009), “in order to do a good job”, teachers need a

… personal answer to the question: what must I do to be a proper teacher?; what are the essential tasks I have to perform in order to have the justified feeling that I am doing well?; what do I consider as legitimate duties to perform and what do I refuse to accept as part of ‘my job’? (Kelchtermans, 2009, p. 262)

For the student-teachers, the internship reinforced the exclusion of the duty to use ICTs from her self-perception as a language teacher. The lack of teacher educators’ feedback on ICT use—despite it being mentioned on an internship assessment rubric—carried the implicit and possibly unintentional message from teacher educators that the student-teachers were free from forces and pressures that would have acted together to shape and maintain their digital teacher identities as classroom ICT users (Beauchamp & Thomas, 2009, p. 178; Danielewicz, 2001). Yet, internal and external motivation are important in the development of a teacher identity. Teachers—and student-teachers—need feedback from others as they construct their self-image and self-esteem (Kelchtermans, 2009). This is because “No amount of training or inputs can substitute for teacher motivation” that is reinforced by ensuring that teachers who perform well are “rewarded” and those underperforming “penalised” (World Bank, 2018, p. 136). But as shown here, Denyse had lost both the hope of gaining such benefits and the fear of being penalised through the assessment of the internship. This made it necessary for her to substitute her “imagined identity” as a teacher recognised for using ICTs in her teaching to a “practiced teacher identity”—one built on the understanding that her ICT practices would be either ignored or not valued as desired (Xu, 2013).
Overall, it is worth seeing this lack of assessment or feedback on ICT usage from different levels. First, that it resulted from assumptions teacher educators made about the internship context. Teacher educators claimed that expecting student-teachers to use ICTs in their internship equated to asking them to “do the impossible” because they had no access to ICTs in placement schools. This practice contradicted recent research findings that have underscored the need to focus on preservice teachers’ ‘individual characteristics’ when trying to understand their digital competences and therefore their potential to become technology-using teachers (Tondeur, Howard, & Yang, 2021). However, this claim can be understood as the teacher educators’ attempt to favourably position themselves by justifying their failings in the internship assessment. This view is supported by some teacher educators’ (Irene, Gerard) pledges that they would henceforth enquire about student-teachers’ use of ICTs during the internship as a result of their participation in this study. Secondly, Denyse used the lack of feedback as a sole determinant of her stopping to make efforts in using ICTs. This allowed her to self-position during the interview as a pro-ICT student-teacher caught between unsupportive teacher educators and obstructive placement school colleagues. In both the teacher educators’ and student-teacher’s cases, it is evident that there is a disconnect between pedagogy and technology, and this is potentially why assessing how student-teachers used ICTs was not a priority.

9.3.6 Concluding notes

From the discussions presented above, it can be concluded that student-teachers’ enactment of digital teacher identities during the internship happened in ways and for purposes that allowed them to claim or ascertain desired positions amongst their colleagues, students, teacher educators and collaborators, rather than trying to achieve a pedagogical goal. This is an important contribution to the understanding of digital teacher identity negotiation in a context where access to ICTs is limited but claims to its benefits are high. In fact, the under-resourced context served as a digital teacher identity negotiation or affirmation tool often to justify the inability or unwillingness to enact expected digital teacher identities. Because of this, there was a disconnect between pedagogical goals and the ICT practices educators reportedly engaged in, a tendency that has been reported in other studies (Reyes, Reading, Doyle, & Gregory, 2017). This disconnect was reinforced by their teacher educators who often rejected any duties towards their student-teachers’ development as technology-using
teachers. I argue that the use of ICTs for self-positioning rather than pedagogical ends itself resulted from the educators’ understanding of their under-resourced context as a place where the use of ICTs to achieve pedagogical goals was a laudable exception, not the norm.

9.4 Student-teachers’ digital teacher identity negotiation strategies

The third and last question in this study was about understanding how student-teachers negotiated their digital teacher identities. According to Swann et al. (2009) identity negotiation amounts to “the processes whereby relationship partners reach agreements regarding ‘who is who’.”(2009, p. 83). In this study, the processes of identity negotiation allowed student-teachers, teacher educators and other educational actors “to establish mutual expectations of one another” (Swann et al., 2009, p. 83) regarding the educational use of ICTs in their contexts. From the positioning perspective, this often translated into claims and ascription of rights and duties associated with different positions available in storylines (Harré, 2012; van Langenhove & Harré, 1999).

The motives for student-teachers to negotiate a digital identity is rooted in their self-image and visions of their future selves. As generally accepted, “Teacher identity concerns teachers’ responses to the following two questions with respect to their teaching self-images: “Who am I at this moment?” and “Who do I want to become?” (Beijaard et al., 2004, p. 122; Yazan & Peercy, 2016, p. 53). Student-teachers’ answers to these questions would have led them to negotiate favourable digital teacher identities that suited how they envisioned their future selves.

Findings show that student-teachers negotiated their digital teacher identities in different ways. First, they attempted to negotiate their digital teacher identity by making epistemic claims about the use of ICTs in their subjects and contexts. Secondly, identity negotiation was conducted through membership categorisations whereby student-teachers were (a) attempting to reject memberships in undesirable categories or b) claiming and actively seeking memberships to desirable categories of (educational) technology users in their contexts. These claims to and rejections of category memberships allowed student-teachers to position themselves in ways that reflected their digital teacher identities. Thirdly, student-teachers negotiated their digital teacher identities by making affective claims about their
educational ICT practice and acceptance. They often used emotional responses to assert the kind of ICT-using teachers they were or wanted to become and those they were not.

9.4.1 Epistemic negotiation of digital teacher identities

The data in this research showed that the negotiation of a digital teacher identity involved attempts to reinforce claims to possess ICT knowledge and skills or to reject being positioned as (not) possessing the required ICT knowledge and skills. This happened through the assignment of various positions to teachers in both policies and interviews which drew from an understanding of a digital teacher identity as dependent on the accrued technological competence consisting of knowledge, skills and attitudes needed for the integration of ICTs in their teaching (Instefjord, 2015). Two components of this technological competence were particularly prominent in the epistemic negotiation of digital teacher identities: (1) knowledge and skills about ICTs, and (2) knowledge of the educational context in which ICT use is needed. Each of these are discussed in the following sub-sections.

9.4.1.1 ICT knowledge and skills as epistemic positioning devices

The findings of this study show that educational ICT policies predefined the kind of graduate the student-teachers were expected to become in terms of the ICT knowledge and attitudes. This was potentially motivated by the role education is expected to play in the future of the country, namely transforming Rwanda into a knowledge-based economy (Government of Rwanda, 2012). The training of student-teachers in this study thus followed a curriculum imbued with principles of a globalised competitive market where the mastery of English and ICTs skills were presented as the primary ingredients for success (Rubagiza et al., 2011; Simpson & Muvunyi, 2012). This form of anticipation of teachers as trainers of students who will take part in a competitive globalised market has been observed by researchers in different contexts such as Botswana (Tabulawa, 2013), China (Zhao, 2010) or the USA (Paine, 2017). Thus, as a country whose educational policies anticipated the educational “use of ICT as a tool for self-employment, innovation and job creation” (Government of Rwanda, 2012), teachers were expected to enact and negotiate a digital teacher identity reflecting this goal even though it can be seen as “a utopian representation of a future education enabled by ICT” (Jordan, 2011, p. 422).
Given the importance placed on ICT usage, the data showed that student-teachers and their teacher educators perceived that possessing or claiming to possess ICT knowledge and skills was critical to being recognised and favourably positioned in the school environment. As a result, both student-teachers and their teacher educators engaged in persistent epistemic positioning of themselves and others in an attempt to claim ICT-related positions or reject undesirable ones. For example, Denyse underplayed expectations for her to use ICTs effectively by claiming to have been poorly trained to use ICTs. She reinforced this self-positioning by claiming that her teacher-educators lacked the right understanding of ICTs as a pedagogical tool, a positioning that questioned the teacher educators’ knowledge and right to be positioned as trainers of future technology-using teachers. Through this negative epistemic positioning of her teacher-educators, Denyse represented herself in a way that justified the digital teacher identity of an unsupported and poorly trained but self-improving teacher. Her use of epistemic positioning to achieve this reflects the view that

Since teacher identity includes epistemological beliefs, concepts and expectations about teaching, professional self-awareness and self-efficacy, all these factors play a vital role in the formation of teacher self-presentation.” (Samburskiy, 2013, p. 40)

Relatedly, Dominic took a favourable epistemic position while indicating that his knowledge and skills gave him more rights than the rest of his colleagues, because he was the “best”. His claim to be “the best” was not a mere claim to an existing position but also an indication of what he understood to be the expected knowledge and skills for a teacher at his level of education and training. Here, it is worth recalling that both student-teachers used ICTs scarcely. Yet, they used their claimed ICT knowledge and skills or lack thereof to position themselves more favourably by lowering expectations through a purported poor training (Denyse) or claiming superiority to others in ICT skills and competences (Dominic).

Another evidence of student-teachers’ use of epistemic claims about ICT in negotiating their digital teacher identity was presented through their complaints about the type and quality of the ICT training received. Student-teachers claimed to have received “theoretical” ICT knowledge that could not enable them to become classroom ICT users because it lacked practice. This means that student-teachers felt unprepared to use ICTs in delivering the English language curriculum that awaited them during the internship because their ICT training did not equip them with the skills they needed for this purpose. This is not a new
finding. Researchers have previously reported that student-teachers are more likely to use ICTs if they have been given training that links theory and practice to enable them to understand the relevance of ICT use (Tondeur et al., 2012).

What the findings of this study add to this existing scholarly knowledge is how student-teachers use their purported poor ICT training to achieve favourable positions and therefore gain a more desirable position. For example, having claimed that he was poorly trained in ICTs, Dominic proved that he was personally committed to ICTs and had become “the best” by his own initiative. The same argument allowed Denyse to implicitly reject any claims of incompetence for her failed classroom ICT use: it was someone else’s fault that her use of ICTs had failed. Thus, their complaints about and criticisms of the ICT skills, knowledge and competences that their teacher education programme sought to develop served them a more important purpose: negotiating their digital teacher identity.

This use of a poor ICT training for claiming a favourable teacher identity and claiming rights is an important contribution to the understanding of how student-teachers develop a professional identity. According to Harré (2005), complaining is “embedded in a complex weave of ‘positions’, that is of clusters of rights and duties with respect to what can legitimately be said and done by whom.” (Harré, 2005, p. 186) Thus, by complaining about the quality and lack of practice in their ICT training, Denyse and Dominic claimed positions about ICT knowledge and skills but also assigned others to those whose duty was to train them in the use of ICTs. The mastery of ICT knowledge—acquired from personal efforts or unachieved because of others’ failure to meet their duties—became therefore a constitutive element of the digital teacher identity the student-teachers ascribed to themselves. It can be argued here that such a digital teacher identity resulted from epistemic identity struggles borne by student-teachers’ understanding that they were unfairly denied a right: to be trained in developing practical ICT knowledge.

The student-teachers’ claims of not receiving practical ICT training from their teacher education programme and the teacher educators’ claims that student-teachers already possessed such knowledge and skills because they were a “new generation” epitomised contradictions in the epistemic positioning of student-teachers. This contradiction illustrated
what has been referred to in the language teacher identity literature as ‘tension’ or “conflict between claimed identities and assigned identities” (Varghese et al., 2005, p. 35).

This contradiction allowed both teacher educators and student-teachers to claim favourable positions on the same topic of student-teachers’ lack of practical ICT skills. Denyse for example rejected any potential blame for her “poor” ICT use attempts because she had taught herself despite there being teacher educators whose duties included training her into becoming a skilled ICT-using teacher. This blaming of others on her lack of training and the resulting poor performance was important to her self-image after students’ feedback on her use of ICTs appeared to question her ICT knowledge and skills, and therefore her competence as a teacher. By claiming a lack of ICT skills and poor training, student-teachers appeared to question their teacher educators’ competence because teacher educator’s professionalism ensures the quality training of preservice teachers (Murray, 2014). However what is important here is that the end of this was not to simply criticise the teacher educators but to highlight the student-teachers’ uniqueness for managing to use ICTs in their classes despite having had limited formal training. The teacher educators’ failure to acknowledge the student-teachers’ efforts during the internship by avoiding discussions about ICTs led to further tensions as the teacher educators’ ICT skills were then openly questioned. An important fact for teacher educators here is that this lack of recognition of student-teachers’ autonomous practices created further tensions and served the student teachers poorly in terms of their development. It is this scaled-up epistemic identity tension that led to Denyse’s disappointed proclamation that her teacher educators did not use ICTs and did not see it as a tool for teaching.

All in all, both Denyse and Dominic made epistemic claims that portrayed their teacher educators as lacking the ICT knowledge and skills. Hence, they made different references to ICT knowledge and skills (especially practical skills) to distance themselves from their teacher educators as the teacher-not-to-become. This reflects previous research in Rwanda where student-teachers “complained that some lecturers did not allow them to use web-based literature because those lecturers themselves did not know how to retrieve and refer to them in a scientific paper” (Mukama, 2009, p. 545). It is also consistent with findings from a recent study that showed that while negotiating their identities, preservice teachers often differentiate themselves from a “kind of teacher character” that they do not want to be.
(Arvaja, Sarja, & Rönnberg, 2020). This study’s addition to this existing knowledge is showing that student-teachers go beyond distancing themselves from their teacher educators and their lack of skills. Instead, they negotiate themselves more favourable positions and identities using the motives and justifications for their self-distancing from their teacher educators. This is how Denyse and Dominic negotiated themselves an identity as technology-using teachers who were building their ICT knowledge, skills and competence, independently of their teacher educators.

9.4.1.2 Acting on context knowledge as digital teacher identity negotiation

Researchers agree that teachers’ context influences their knowledge base, which in turn affects their identity (Beijaard, Verloop, & Vermunt, 2000). Some scholars also argue that “teachers’ professional identities” “carry the characteristics of the school in which they work.” (Day & Qing, 2009, p. 28) This was evident in this study as student-teachers used their awareness of the lack of ICT resources or motivation to use ICTs in their placement schools to claim a desired digital teacher identity. For example, Denyse decried a lack of motivation and appreciation of her ICT efforts by the placement school leadership which she accused of not wanting her to succeed. Because this kind of sentiment often results from “situations” that “make you acutely aware of what you consider really important in your work” (Meijer, 2017), Denyse used it as evidence that she was not expected to use ICTs. Consequently, she portrayed herself as blameless despite barely using ICTs in her teaching during the internship in a policy environment that expects ICTs to be at the “heart” of education. The use of context knowledge to justify not fulfilling policy-assigned duties supports findings that depict teacher identity as context-dependent (Barkhuizen, 2016a; Day & Qing, 2009).

In fact, knowledge of the context is important in teachers’ digital teacher identity enactment due to its influence on what is seen as acceptable educational ICT practices in their context. Student-teachers subtly used the knowledge of their context to negotiate the positions and digital teacher identities by reconciling clashing ICT expectations in their contexts. Dominic’s ICT practices particularly illustrate an effort to reconcile personal initiatives to enact a digital teacher identity and the school-level exigencies that did not include expectations to use ICTs in the teaching. In his teaching, Dominic electronically shared his course notes with willing students but still obliged them to make a handwritten copy of the same notes to meet as
school requirement that all students make handwritten copies of course notes. With this requirement, Dominic successfully negotiated himself a favourable position in two antagonising worlds by reinforcing his school’s requirement while at the same time by enacting his claimed identity as a technology-using teacher. Dominic went even further to reconcile these two positions by claiming ownership of the handwritten notetaking policy, essentially making it a trait of his practice because it did not obstruct any of the positioning claims he made in connection with his digital teacher identity and its enactment.

Similarly, teacher educators understanding that the college was more interested in evidence that they had content on Moodle rather than actually using it with students allowed them to meet this requirement by creating classes in which they never enrolled their students-teachers. In fact for these educators (especially Denys, Dominic, Irene and Gerard), knowledge of their educational context and using it at their own advantage symbolised their “development of an understanding of what it means to be a teacher, in one's own eyes but also in the eyes of others” (Sachs, 2005, p. 8).

This finding about student-teachers and their teacher-educators’ subtle navigation of the contextual requirements goes beyond earlier findings that the professional context of teachers “shapes and reshapes” their identity (Beauchamp & Thomas, 2009, pp. 177, 178). It underscores teachers’ purposeful and agentive use of their knowledge of the context to represent themselves in accordance with contextual expectations. As findings show, educators used their awareness that epistemic claims about ICTs, including professed beliefs in the value and relevance of ICTs in education acceptance—not necessarily using ICTs in their teaching—was enough to guarantee them rights and recognitions reserved for technology-using teachers.

Although teachers’ appreciation of the value of ICTs is considered “positive” even when they lack the ability and resources to use these tools for educational purposes (Instefjord, 2015), such an ICT acceptance does not lead to the pedagogical changes expected from technology-using teachers. The context of this study’s participants enabled teachers’ contentment with their ICT acceptance as an end goal in itself and therefore sufficient to claim a digital teacher identity. This does not challenge the general agreement that ICT access constitutes an ‘influential factor in determining a teachers’ use of technology’ in African educational
contexts where ICT resources remain extremely limited (Agyei & Voogt, 2011, p. 93). However, it shows that in these under-resourced contexts where access is limited, espousing positive beliefs about ICTs can be used to claim an identity as a competent technology-using teacher without this being reflected in practice.

Findings of this study also suggest that the lack of mentoring was one of the kinds of context knowledge that both Dominic and Denyse elicited and used in negotiating a digital teacher identity. Their self-presentation to and interaction with the researcher surfaced issues that indicated a lack of a reliable student-teacher and mentor relationship during the internship. As shown throughout the data, neither student-teachers received the ICT mentoring they expected. They had to do without such an important input in their professional development during the internship. However, this does not suggest that they were completely deprived of mentoring opportunities during their internship while they were taking part in this study. According to Kiely and Askham (2012), teachers come with dispositions that allow them to learn and adapt during their teacher training. The authors give an example of one of their study participants—Chris—who “was supposed to have a mentor, but did not. Then a few weeks into the programme he acted as a mentor for another new teacher.” (Kiely & Askham, 2012, p. 513).

Both Dominic and Denyse used their teacher “disposition” to assess and understand the context—which was devoid of mentoring opportunities—and also their ability to appreciate that the researcher in that context was a potential source of mentorship. They thus adapted to their lack of mentoring by using their participation in this study as a mentoring opportunity that prompted them to reflect on their ICT use during the internship and receive “feedback” from the researcher. They both showed this by declaring that being in the study had allowed them to try using ICTs either in anticipation of their future interviews with the researcher or as a response to interactions in a previous interview. Their anticipation that they would discuss their ICT uses (e.g. challenges faced while using ICTs, for Denyse, and what uses to make of devices in class for Dominic) shows that they treated these research interviews as mentoring sessions in which, as mandated by their university, should include discussing their practice, including challenges and areas of improvement (KIE, 2012). This, thus, indicates that participation in research itself had become a mentoring opportunity and that student-
teachers used their discussions with the researcher as professional development opportunities.

Although Dominic and Denyse did not end up mentoring other student-teachers like Chris in Kiely and Askham’s (2012) study, they tried to use their own experience to futureproof their students against the challenges they had faced. For example, after struggling to connect speakers and other devices to deliver a listening lesson, which she blamed on poor training and lack of mentoring support, Denyse claimed that she wanted her students to learn how to do this as a cross-cutting skill. This can be seen as an attempt at mentoring her students to become ICT users even though she was not teaching ICTs.

Denyse and Dominic’s lack of a reassuring student-teacher and mentor relationship to affirm their competence and professional identities (Danielewicz, 2001) meant that they had no choice but to use their participation in this study as a mentoring opportunity that they did not have, and thus use the researcher who was available to them as the context-based mentor they lacked. By turning the “participant-researcher” relationship into a relationship between a “researcher as mentor” and “mentee-participant”, they, like Chris in Kiely and Ashkan’s study, showed their “capacity to deal with the situation and learn further from it” (Kiely & Askham, 2012, p. 513), which indicates a good use of their context knowledge. Importantly, their success in doing so shows that, for teachers with no or limited mentoring or professional development opportunities, participation in a research can become a professional development opportunity in its own right.

It is noteworthy that even for teacher educators, participation in this study acted as a professional development opportunity which enabled them to reflect on their practice and plan for better ways of supporting their student-teachers’ development of digital teacher identities. For instance, Gerard pledged to check if and how his students were using ICTs while Irene decided to start modelling some ICT uses for her student-teachers. These plans for change as a result of participation in a research interview underscored the need for more research on educational practice in under-resourced contexts, not only because they are under-researched but also because, unlike in more affluent contexts, a researcher in these contexts is more likely to bring and also represent knowledge, skills and time to focus on a
specific issue, all of which could address some of the mentoring and professional development needs of their potential study participants.

9.4.2 Individualisation and categorisation as digital teacher identity negotiation

Both teacher educators and student-teachers engaged in the process of self-positioning and claiming certain identities by othering and categorising others in such ways that enhanced their claims to be recognised and identified as occupying certain positions. This was particularly evident in the categorisations of students, teachers, and colleagues. The use of categories such as young generation, teachers of English, non-ICT teachers, non-ICT users, etc. allowed both the student-teachers and their teacher educators to claim or reject membership to these categories and therefore assert their digital teacher identities accordingly.

In the next sub-sections, I will discuss these membership categorisations and their use in negotiating a digital teacher identity.

9.4.2.1 Subject category memberships as digital teacher identity negotiation devices

Data in this study showed a use of membership in subject-related categories to either claim or reject resulting positions (and associated rights and duties) to achieve identification or recognition as a technology-using teacher. Both student-teachers and teacher educators used this strategy. For example, when Gerard, a teacher educator, rejected having any duty to model educational ICT use for his students because ICT was not his subject area, he was rejecting membership to another category—ICT experts. With this rejection of membership, he also rejected ICT duties towards his student-teachers. Thus, through the rejection of membership to a given category membership (and associated duties of modelling ICTs for student-teachers), Gerard could not lose his identity as a committed teacher educator even if he had accepted not supporting his student-teachers because he belonged to the non-ICT experts category. Consequently, this seemingly unfavourable self-categorisation nevertheless allowed him to maintain his recognised identity as a competent teacher educator in his subject area.

Relatedly, Maximillian claimed membership to the category of teacher educators with teaching qualifications to cast himself as technologically and pedagogically competent to
support his student-teachers’ ICT skills development. By so doing, he also denied other teacher educators membership to this category and therefore the right to claim a similar digital teacher identity. There are similarities between Maximillian’s use of his credentials as a formerly trained teacher and the professional identity affirmation strategies of Murray’s (2014) teacher educators for whom “being able to cite school experience and to position oneself as “still-a-school-teacher” remained essential capital” in their self-representations as “credible” teacher educators (Murray, 2014, p. 16).

Like their teacher educators, student-teachers used subject category memberships to negotiate or affirm their digital teacher identities. For instance, Dominic’s insistence on being an English language teacher and yet a skilled ICT user, implied that within the English language teacher category, there were those who could use ICTs—himself included—and those who could not. These claims to be recognised as belonging to a different category within a category were also positioning moves aimed at reinforcing the claimed digital teacher identity as a unique English language teacher whose ICT skills where comparable to those of student-teachers specialising in ICT-focussed specialism. As a language teacher, Dominic could hardly claim membership to ICT teachers’ category. However, he established his uniqueness by comparing his ICT skills to those of teachers specialising in ICTs. He used his identity as teacher of English to build his self-positioning as a unique technology-using teacher with skills that made him “the best” in terms of educational ICT use. This use of his English language teacher identity to negotiate another identity was consistent with the observations that “professional identity is not something teachers have, but something they use in order to make sense of themselves” (Beijaard et al., 2004, p. 123).

However, the use of subject categories as an identity negotiation appeared at times antagonistic or untenable in the long run. For instance, Dominic claimed to have been discriminated against therefore restricted from using ICTs by teachers of other subjects whom he believed lacked the understanding that English also required the use of ICTs. Implicitly, this aligned him with policies that mandate using ICTs in the teaching of all subjects while highlighting that other teachers were not in line with educational ICT policies. He later rescinded this antagonistic categorisation of teachers in his internship after he understood the scope of ICT access challenges in the school. This came after he tried to use ICTs in his teaching. Through this practical attempt at using ICTs, he had faced the reality of educational ICT access challenges in the school.
practice and developed an understanding of how ICT use and access “really worked” in his placement school (Harries, 2012, p. 160; Xu, 2013). The re-evaluation of his categorisation of colleagues was a testament to changes in his digital teacher identity.

It can, therefore, be argued here that the use of ICT-related categories was only a recourse when the student-teacher had no alternative means to assert his claimed digital teacher identity. These categories were created as enactments of his imagined self as a technology using teacher obstructed before it later gave way to a digital teacher identity rooted in his classroom use of ICTs. This is consistent with findings in Xu's (2013) study of novice teachers which showed that teachers may replace their pre-existing or “imagined” identities with those emerging from practical experience or “experienced” identities. The categories were eventually abandoned once Dominic no longer needed to categorise others unfavourably to affirm his own digital teacher identity as a competent technology using teacher because he had acquired practical experience to serve a similar purpose.

9.4.2.2 Negotiating digital teacher identity through generational categories

Another key strategy student-teachers and teacher educators used to negotiate and affirm their digital teacher identities was by assigning, claiming, or rejecting membership to age and generational categories that represented the kind of technology-using teachers they considered themselves or others to be.

To highlight their student-teachers’ age-justified ICT competences, teacher educators alluded to two opposite categories, that of “this young generation” of student-teachers and that for all those who came before, in which one teacher educator (Gerard) openly included the researcher. Teacher educators used this categorisation to point out that due to increased ICT access, their student-teachers were more technologically skilled than they themselves had been. Teacher educators (James, Gerard, Irene, Bernadette) also considered their student-teachers to be technologically savvy and therefore ready to use ICTs in their teaching because they were a “new generation” with propensity towards modern ICT tools like laptops and mobile phones, instead of “pencil and paper”. This generated and perpetuated assumptions that deleted student-teachers’ rights to effective training and modelling for ICT use and, therefore, led to their ‘malignant positioning’ (Sabat, 2003). This is because claiming that
student-teachers were technologically competent relieved teacher educators of the duty to provide student-teachers with ICT training and modelling.

The use of age categorisations to assign or claim digital teacher identities is reminiscent of the controversial claims about an existing link between age and the ability to use and adapt to technological changes in educational settings (Bennett, Maton, & Kervin, 2008; Jones & Czerniewicz, 2010; Lei, 2009; Margaryan, Littlejohn, & Vojt, 2011; Prensky, 2001; Selwyn, 2009). However, what was new is that they used this age trope often inconsistently to justify how they positioned and categorised themselves and others whenever the outcome afforded them a favourable positioning. This indicates that the educators in this study did not actually subscribe to the disproved digital native versus digital immigrant myth. This is not new because research shows that far from being the digital immigrants, older, more experienced teachers may be less technologically anxious and therefore more likely to use technology in their teaching (Agyei & Voogt, 2011, p. 92). Instead, they used generational categories as objects in their digital teacher identity negotiation toolkit that could be used to serve a positioning purpose without reflecting their overall convictions about who can do what with technology.

The recourse to generational categories for negotiating and assigning digital teacher identities, especially by the teacher educators was embedded in their “personal history” of studying without access to ICTs, and their interpretations of what their students could do with ICTs (Vanassche & Kelchtermans, 2014, p. 118). Therefore, the teacher educators’ positioning of their student-teachers as technologically skilled because of their age can be seen as an implicit acknowledgement of their own lack of enough ICT skills and experience to model ICT practices for these student-teachers rather than an outright acknowledgment of the student-teachers’ age-dependent ICT competences. This is consistent with findings from previous studies on teacher educators’ technology integration practices which showed that teacher educators’ ICT knowledge, technological experience affect their likelihood to model technology integration practices for their student-teachers (Rosdi et al., 2020; Tondeur et al., 2012; Uerz et al., 2018).

All in all, the generational categories in this study were means for educators to negotiate or maintain favourable positions within educational ICT storylines in their under-resourced
contexts. These generational categorisations were used to describe ICT traits inherent to a whole generation and to justify the discoursing educator’s claimed or enacted digital teacher identity. It is this kind of interpretation that explains educators’ accounts of their digital teacher identity enactments such as (a) denying students access to Wi-Fi because they were young and potentially disruptive with it (Dominic), (b) not using ICTs frequently because the “young” and enthusiastic students would be too carried away by the ICTs (Denyse), or characterising student-teachers as technologically skilled and capable of ICT integration, thereby withdrawing from the duty to model ICT practices for them (Gerard, Irene).

9.4.3 Affective negotiation of digital teacher identities

In their attempts to depict themselves favourably, students-teachers exhibited and then responded to different ICT-related emotions. They dealt with such emotions through practice and discourse in ways that allowed them to claim positions and particular digital teacher identities. In the next sub-sections, I focus on the presence and use of emotions in student-teachers’ negotiation of their digital teacher identities but also the affective digital teacher identities negotiated through responses to ICT-related emotions.

9.4.3.1 Emotional engagement in negotiating digital teacher identities

Findings in this study show a significant place afforded to emotions in negotiating digital teacher identities. This appears in both policies and interview data in different ways. On one hand, policies sought to encourage teachers to become educational ICT using teachers by appealing to their emotional connection with the country’s development ambitions such as becoming a knowledge-based economy and a regional technology hub. The presentation of ICTs as a cornerstone of the country’s economic ambition and characterisation of education as the key to adoption of ICTs and achievement of this economic goal makes teachers central to this narrative. Thus teachers who embrace this identification are expected to act and “respond affectively” in a way that matches their assigned identity as a teacher in this system (Appiah, 2006, p. 16).

On the other hand, teacher educators and student-teachers rejected or claimed positions and affirmed their digital teacher identities by indicating emotional connections or disconnect with different actors and practices. This allowed them to enact certain identities but also to claim new ones by changing those they already possessed. For instance, Maximillian reported
addressing his students as “my friends” to draw their attention to his ICT use and how they could imitate his practices when teaching language aspects such as phonology. This emotionally endearing phrase implicitly communicated to his student-teachers that his advice was not from an authority (which may lead to resistance to authority) but rather from a caring “friend” who wished them success in their future teaching careers.

Policies sought to achieve a similar endearing effect despite assigning ICT use duties to teachers through the use of imperatives such as “teachers must” or “teachers need to”. They managed so by contextualising teachers’ requirements to embrace ICTs as necessary to address socio-economic challenges that the country faces, and which also affect teachers themselves. This is for instance why teachers’ potential to have a lighter workload and have their image and status improved were connected with the adoption of ICTs and the improvement of the quality of education and the economic situation of the country.

Such an appeal to emotions in the ascription, negotiation or enactment of a digital teacher identity was, I argue, aimed at creating (for policies) or claiming to have (for educators) an ICT-friendly teacher identity that would be recognisable within the socio-cultural context. My argument here is consistent with previous research on Korean foreign language teachers which underscored the importance of emotions in teacher identity change, in that emotions “entailed a transformed professional teacher identity” (Jeongyeon & Hye Young, 2020). Similarly, commenting on a participant in his own previous research (Catherine), Zembylas (2003b) explained how she was subjected to emotional experiences aimed at changing her:

“By repeatedly characterizing her teaching philosophy as flawed, colleagues, administrators, and school policies used shame to attune Catherine’s affective responses, or to put her in line.” (p. 121)

Catherine’s experiences are relatable to Denyse’s use of emotion to negotiate a digital teacher identity. Her claimed lack of “motivation” or “feedback” from her school officials and visiting university lecturers led to strong digital teacher identity claims, namely that she was being obstructed from achieving her ICT-using potential. This purported school officials’ move to demotivate Denyse from using ICTs by provoking emotions such as disappointment and feelings of abandonment can be similarly seen as being “put in line”. In fact, Denyse’s disappointment can first be understood as a start of a new process of adopting a more acceptable digital teacher identity within that placement school context after the realisation

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that she could neither enact her claimed digital teacher identity nor identify with educators around her because they were not attentive or supportive of her ICT-using teacher identity claims.

This observation aligns with Meijer's (2017) observation that “The challenge for the teacher-in-training is to indeed find out who and what they want to identify with and what this says about them.” (p.212) Denyse’s expression of disappointment would, therefore, be a means for negotiating a new digital teacher identity—an unrecognised technology using teacher—after the realisation that she could not be recognised as the technology using teacher she sought recognition for. Thus, her disappointment—which also belies a feeling of powerlessness for not getting what she wanted and yet not being able to do anything about it—represented for her a “possibility of self-transformation” (Zembylas, 2003a, p. 227).

Denyse’s disappointment after an unsuccessful quest for recognition as a technology-using teacher—an identity she wanted validated externally—reinforces the findings that “becoming a teacher necessitates not only self-identification but also social legitimation from other members of the professional community” (Yazan & Peercy, 2016). The realisation that she needed approval to truly be her desired self was expressed through the emotion of anger towards her teacher educators and her placement school officials and colleagues whom she saw as barriers to her intention of successfully completing the internship as a competent technology-using teacher: “they don’t want me to achieve what I want to achieve.” This discontentment illustrates what has been dubbed the “battle of wills” in identity negotiation (Swann et al., 2009) whereby Denyse’s expectations and self-views as deserving recognition “clashed” with the school and supervisors’ unexpressed interest in her use of ICTs during the internship. This was not surprising given that the internship is a period of particular emotional vulnerability for student-teachers (Yazan & Peercy, 2016).

Another subtle use of emotions to negotiate a digital teacher identity appeared through the student-teachers’ expression of empathy towards their students and their need for a better future. Denyse and Dominic portrayed themselves as caring and concerned about their students’ future. Dominic referred to them as his “young brothers” for whom not using ICTs would have a negative impact on their futures. The student-teachers thus wanted to safeguard them by exposing them to ICTs in the classroom. This empathetic emotion thus enabled student-teachers to reinforce their self-image as supportive and caring for their
students while satisfying their desire to have a purpose. It also gave them satisfaction that they were preparing their students for future successes by offering what Denyse referred to as “cross-cutting” skills.

Research has shown that teachers get motivation, satisfaction and self-esteem by the understanding that they are useful to their students in more ways “than just being a qualified source of subject matter knowledge” (Kelchtermans, 2009, p. 263). Similarly, the student-teachers’ emotion of empathy can also be understood as part of their identity negotiation efforts in which they wanted to be recognised as more useful to their students beyond simply being their English language teachers. Enacting an empathetic digital teacher identity enabled them to achieve this aim.

Notwithstanding that “a key aspect of teachers’ changing identities revolves around the emotions associated with the teaching process” (Schutz & Lee, 2014), my argument in discussing these educators’ use of emotion in their digital teacher identity negotiation is that their appeal to emotions was rooted in their educational experience and under-resourced context. In the case of Denyse especially, she was sympathetic to her students’ limited ICT exposure partly due to her reportedly poor ICT training that she considered to have predisposed her to unfortunate classroom ICT experiences as a teacher and wanted to spare her students a similar fate in their careers. On this regard, her approach reflected that of Min, a participant in a recent study which looked at ways teachers of Korean as a foreign language (FL) negotiated emotions within their emerging teacher identities. The authors observed that Min’s “act of projecting onto her students her experiences of the difficulties associated with FL learning switches her frustration to the emotion of compassion.” (Jeongyeon & Hye Young, 2020). Similarly, Dominic’s perception of students as “younger brothers” conveyed an emotional attachment to them which he used to justify his interest and willingness to use ICTs in the educational context as a brother helping siblings. This stated brotherhood elicits emotions connected to “teaching-as-caring” (E. R. Miller & Gkonou, 2018). These emotions also drew attention to the realities of context, an understanding of which was necessary in their digital teacher identity negotiation (Jeongyeon & Hye Young, 2020). Both student-teachers used emotions to negotiate a digital teacher identity as student-supportive and friendly technology-using teachers by expressing those emotions within what is culturally acceptable in the Rwandan context (such as the social links between siblings).
9.4.3.2 Affective digital teacher identities: battling for power in the classroom.

Researchers have compared the educational use of modern technologies to a “battlefield”, arguing that they have a potential to “topple traditional classroom hierarchies of power in unpredictable ways” (Vie, 2008, p. 19). Findings of this study show that participants equally perceived the use of ICTs as a threat to their positioning and their overall teacher identity in the classroom. Student-teachers grappled with ICT use in the classroom and its potential to delete their teacher rights—as the authority in the classroom. They dealt with this emotion of fear by seeking various positions that enabled them to either justify not using ICTs or using ICTs in ways that guaranteed them continued classroom control.

Specifically, this study’s findings show that student-teachers claimed seemingly incompatible positions in which they sought to portray themselves as supportive of their students’ ICT use and access while at the same time trying to advocate for restricting students’ ICT use. This was in accordance with observations that people have “countless possibilities” of identities they can enact simultaneously (Gee, 2000, p. 99). The student-teachers’ enactment of apparently opposing digital teacher identities is an additional evidence of teacher identity being “multifaceted” and “multiple” (Beauchamp & Thomas, 2009; Varghese et al., 2005). It illustrates how student-teachers saw ICTs both as a tool for classroom learning enhancement and a potential cause for classroom disruption. This conclusion is also reflected in previous research that has shown that teachers often find ICTs to enhance their teaching while at the same time reporting that such use caused them “so many problems of class control” (Yunus, Nordin, Salehi, Amin Embi, & Salehi, 2013).

The digital teacher identities enacted through efforts to maintain authority were also affective because they emerged as practical responses to the fear of losing classroom control. This is why they often contradicted what student-teachers claimed to be their desired ICT-enhanced learning experiences for students. For example, Denyse wanted to give his students more ICT exposure so they could develop transferable skills. Yet, she reportedly avoided using ICTs in her teaching regularly because she feared she may eventually lose her students’ attention as if competing for it with the technologies she was using. These contradictions highlight the role of emotions in determining what teachers proclaim about their identities.
and what identities transpire from their classroom practices. They nevertheless represented for the student-teachers opportunity for professional growth—and therefore identity change as they confront the classroom context (Duff & Uchida, 1997).

9.4.4 Concluding notes on digital teacher identity negotiation strategies

The analysis in this study has enabled me to contribute to existing teacher identity scholarship by identifying different strategies used in the negotiation of ICT-related positions and teacher identities. Student-teachers and teacher educators used a range of strategies to negotiate preferred digital teacher identities, namely by (1) creating categories (age, subject), (2) invoking epistemic attributes and using them to claim or enact certain digital teacher identities and (3) making affective claims about educational ICT practices and benefits. This finding also has a theoretical contribution to positioning theory. The theory is often criticised for lacking clarity in the way concepts such as position and positioning are operationalised in research (Kayi-Aydar & Miller, 2018). The identification of processes of identity negotiation through several ways of claiming and rejecting positions provides a practical example of positioning theory in action.
Chapter 10: Conclusions, limitations and implications

The aim of this study was to understand how preservice teachers in the Rwandan under-resourced educational context negotiate and enact digital teacher identities during the internship. The study originated from the need to understand the impact technology training in teacher education has on the identity development of preservice teachers during the critical period of the internship. This was particularly important given that few studies have tried to explore teachers’ technology training from an identity perspective. Even fewer are studies that explore how teachers in technologically under-resourced contexts develop educational technology user identities. Lastly, the desire to better understand and improve my practice as a teacher educator in the Rwandan under-researched and under-resourced educational context also motivated this study.

The study focussed on two student-teachers on an English language teacher education programme as core participants who were interviewed three times during a yearlong teaching internship. Contextualisation of their identity development and negotiated was achieved through five interviews with teacher educators and an analysis of policy documents. I operationalised a digital teacher identity as one of the “sub-identities” that constitute a professional teacher identity (Beijaard et al., 2004; Swennen et al., 2010). The identity lens was important in this study because education is an “occupation where who a person is remains so tightly interwoven with how one acts as a professional” (Lerseth, 2013, p. 15) This was particularly relevant for researching digital teacher identities, given the increasing requirement to use ICTs in education and the progressively blurred boundaries between technologies for personal and educational use. Identity negotiation was analysed from the participants’ discourse using the Positioning Triangle, an analytical framework within Positioning Theory that serves as the study’s theoretical framework.

In this final chapter, I will take a reflexive approach to the study before summarising its key findings and discussing its contributions and limitations.

10.1 Reflexivity: Researcher positioning and influence

Before summarising the research contributions of this study, it is important to take the reader through a reflexive process that will highlight both the strengths but also the limitations of
the study. This is important not only because it is good academic practice but also because it enhances the trustworthiness of the study by allowing the reader to appreciate how the findings and the contributions summarised herein were arrived at (Guillemin & Gillam, 2004; Watt, 2007).

Data analysis in positioning theory poses as many challenges as it offers opportunities. And this analytical conundrum did not spare this study. It has been observed that “the researcher’s position as an outsider looking into an alien culture” interprets data within their “own cultural storylines” (Bartlett, 2007, p. 184). The storylines, positions, and claims to rights and duties identified within participants’ discourses constitute my interpretation of their interview statements, through the lenses of positioning theory and in light of the current study objectives. As a product of the programme, and having been taught by some of the participants, this “culture” was not entirely alien to me. Thus, my familiarity with the context and its “culture”, and participants’ awareness of this, could have influenced the storylines I was told and how they were shared with me, but also my understanding of the positions created and claimed within those storylines. For example, during interviews, I was intermittently positioned as an insider or outsider and even compared to other cohorts of student-teachers on a programme I graduated from more than a decade ago.

This implies that (1) I was already aware of what the programme was like in the past and (2) some of the participants already positioned me in relation to other student-teachers on the programme. For instance, Gerard referenced the time I was a student on the teacher education programme to justify his positioning of the current cohort of student-teachers as technologically competent. In this way, he categorised me amongst the technologically unskilled old generation, unlike the younger more technology-savvy student-teachers. This shows how, as a researcher, I was never neutral because of my connection to both the programme itself and the teacher educators who worked on it.

It has been argued that, as researchers, “we can never enter the minds of our subjects; but we do have the tools to outline the different positions they construe and construct through their discourse and to relate these to the different means at their disposal as a function of the sociocultural structures in which they operate.” (Bartlett, 2007, p. 184) In my analysis of the data, my knowledge of positioning theory, the context and awareness of my own positioning
within the study context were all tools that served in analysing and selecting the extracts presented here.

There is a wide consensus among qualitative researchers that the researcher also acts as a participant in the study and ought to acknowledge their own influence on the study and the participants in that study. As Duff and Uchida observed in their own study of EFL teachers’ sociocultural identities in Japan, even when there is no intention of affecting participants’ roles or identities, participation in a research is likely to leave some influence on those taking part, participants and researchers alike (Duff & Uchida, 1997).

As reported in the findings, some participants reiterated how the interviews reminded them of the things they should be doing regarding educational ICT use. Gerard and Irene went as far as crediting me for reminding them about the need to check whether student-teachers used ICTs during their internship even though this was already an item on the Internship assessment rubric. All this resulted from interviewer-interviewee interactions, thereby suggesting that my questions, comments, or the opportunities for reflection enabled by participation in this study made participants feel/realise that there were changes to be made in their educational practice.

Similarly, student-teachers indicated that the study had driven them to use ICTs. They explained this by what they saw as a need to either respond to my questions in future interviews (Denyse & Dominic) or to prove that they could use ICTs in ways they had told me but thought I was not convinced about (Dominic). Dominic credited me for having prompted him to seek support to get materials after I asked what he could do if he had access to ICTs. This led him to use projectors in his teaching for the first time in the school.

From this perspective, my use of positioning theory adds another layer of researcher influence because “positions” are claimed and assigned through interactions (B. Davies & Harré, 1990). Thus, it is indubitable that my interaction with teacher educators, student-teachers, and the researcher-participant relationship built over the course of three interviews mean that we (I and them) interactively positioned and assigned each other rights and duties that influenced the outcome of the study to an unknowable extent. Thus, in this study, every “research interview is an inter-view where knowledge is constructed in the inter-action between the interviewer and the interviewee” (Kvale, 2007). This reflective exercise is therefore provided
here to acknowledge this fact because doing otherwise would “create a naïve and unproblematic acceptance of interview data at face value.” (Lee & Roth, 2004, n.p.)

While research participants often acknowledge learning about their practice through research participation in research that prompts reflection (see for example Westbrook & Croft, 2015), this admission from teacher educators in this study shows that the meaning they attached to discussions in interviews may have also had a positive impact on their practice. This kind of influence “challenges the assumption that there can be a privileged position where the researcher can study social reality objectively, that is, independent from it through value-free inquiry.” (Palaganas, Sanchez, Molintas, & Caricativo, 2017, p. 432). In fact, participants often made pledges or sought to act in particular ways to either claim positions or reposition themselves in response to their perceived, yet unintentional positioning by me, or simply because the evolution of the discussions availed new positions for them that they wanted to claim by acting or responding in certain ways. This is important for understanding my analysis of student-teachers’ negotiation of a digital teacher identity using interview data, given that interviews “are sites whereby identity and issues of self-presentation are accomplished.” (Lee and Roth 2004, n.p.). Motives of self-presentation included what I perceived to be the participants’ positioning of me as ICT-friendly and technologically knowledgeable because I was researching ICT-related issues. This appeared to have encouraged them to seek recognition as professional ICT-using educators with specific identities as the findings—summarised below—show.

10.2 Key findings and conclusions

Regarding the assignment of digital teacher identities, the study identified three main types of digital teacher identities assigned to teachers in policies, namely the identification of teachers as ICT-skills deficient, backbone of educational ICT adoption and dutybound educational ICT users. The study found that these different digital teacher identities were interconnected and aspirational. This made them future-oriented rather than digital teacher identities currently enacted by teachers in the Rwandan education system, hence making them negotiable in school context.

In connection with the assignment of digital teacher identities on the language teacher education, the study established that student-teachers’ ICT training and assessment
experiences on the programme were affected by identities assigned to them by their teacher educators. I found that because of assumptions that teachers will work in under-resourced schools or are of a younger generation growing up in technologically richer environment than their teacher educators, ICT support and modelling on the programme was quasi-inexistent. Besides this, findings showed that teacher educators felt no duty or rejected having any duty to provide ICT modelling to their student-teachers, thereby leading to a very limited ICT experience for student-teachers during their teacher education.

In terms of student-teachers negotiation and enactment of digital teacher identities during the teaching internship, findings in this study indicate that student-teachers used three main strategies to negotiate their digital teacher identities: making epistemic claims, claiming or rejecting membership categorisations, and displaying ICT-related affective attributes. These strategies allowed student-teachers to represent themselves as ICT-friendly, student-centred, self-trained educational ICT users.

An important finding with regard to the use of these strategies is that the negotiation of the digital teacher identities was mainly for self-preservation and self-presentation, and lacked connection with the pedagogical application of ICTs. Thus, findings revealed that teachers negotiated or enacted digital teacher identities, not because they were attempting to achieve an ICT-supported pedagogical goal, but because they wanted to represent themselves as technologically competent teachers. The study has established two main reasons for educators’ drive to negotiate an advantageous digital teacher identity without seeking to attain a pedagogical goal. The first is the low level expectations for teachers to use ICTs—constantly using the under-resourced context as a passe-partout justification for failing to use ICTs. The second reason was the aspirational nature of the digital teacher identities assigned to teachers in policies and the general assumption that an effective use of ICTs by teachers was a future—not present—occurrence. My argument is that the interplay between these two reasons made the development and negotiation of a digital teacher identity an idealised achievement that was practically not a requirement and one that deserved praise and formal recognition if ever achieved.
10.3 Research contribution

Findings of this study make a contribution to knowledge and practice with regard to teacher identity development and negotiation, and the technology training of teachers in under-resourced contexts. The study also makes theoretical and policy contributions that I will highlight below.

10.3.1 Knowledge and practice in teacher identity, educational technology and teacher education

**Negotiating a digital teacher identity in an under-resourced context:** One of the main contributions of this study is that it provides a contextual example of motives and strategies used by educators in negotiating a digital teacher identity in contexts where access to ICTs is limited. The study shows that despite limited access to educational ICTs, student-teachers in this context consider the development of a digital teacher identity a worthy investment for their teacher image and recognition. The understanding of these strategies will provide teacher educators insights into ways of supporting student-teachers in their development of a digital teacher identity that is valuable in their contexts. The identification of these strategies also contributes to the still limited understanding of how teachers develop and negotiate a professional identity. Researchers will find these findings useful in decoding the “black box” that teacher identity is perceived to be (Henry, 2016)

In fact, some researchers have continuously argued that we still know little about how the increasingly accessible educational technologies affect and redefine teachers’ competencies and identities (Lund et al., 2014; Nunan, 2016; Toohey, 2016). Our understanding of the way technology affects teacher identity in under-resourced contexts is even more limited. This study provides a starting point for exploring teacher identity with a focus on technology that responds to earlier calls for research on the technology dimension of teacher identity (Gong et al., 2018).

**Explaining teacher educators’ disinterest in their student-teachers’ digital teacher identity development:** Borg maintains that a research focus on preservice teacher education can provide insights into “the assumptions and philosophies that guide course design and pedagogy in pre-service contexts and about how student-teachers see their own identities” (Borg, 2016, p. 130). The study has underscored the limited direct involvement of teacher...
educators in their student-teachers’ development of a digital teacher identity. As shown throughout the data, teacher educator rejected or claimed to be ignorant of having any duties to provide their student-teachers with ICT training and modelling. This was therefore a confirmation of previous research that has repeatedly shown that student-teacher’s lack of role models in their teacher educators undermines their potential to become ICT users (Goktas, Yildirim, & Yildirim, 2009). Besides confirming this already known finding, this study adds a possible explanation to why this lack of ICT role models. I have shown that the overlook was potentially due to the fact that ICT as a skill or competence had no incidence on the teacher recognition as competent upon the completion of the internship, partly because of the under-resourced nature of the context but also because of the socio-historical background of the Rwandan society whereby priorities to have “qualified” teachers supersede the need to assess the level of their qualification.

Therefore I argue that teacher educators ignored assessing student-teachers’ ICT skills not only because they were aware of the lack of resources in the placement schools, but most importantly because they attributed it little value in determining the identity of the teachers they were training. This suggests that despite ICT policies’ emphasis on the relevance of ICTs in education, the ability to use ICTs in the classroom effectively was not perceived as a constitutive element of the identity of a competent English language teacher in a context where they could claim to have limited access to ICTs. Given that this led to malignant positioning of student-teachers, it is important for teacher educators to re-examine their epistemic positioning of student-teachers based on their supposed ICT knowledge and potential future ICT use. This is because, as this study has shown, “What gets defined as teachers' knowledge may not only be ineffectual in practical terms for the teacher but may marginalize the status of teachers whose knowledge lies outside of the status knowledge domain” (Golombek, 1994, p. 405).

Another important contribution of this study is to the still lacking research on technology integration in under-resourced contexts. The identity approach taken provides insights into what matters for teachers working in these contexts when enacting or negotiating a digital teacher identity. Throughout all the storylines, the student-teachers and their teacher educators appeared more concerned or interested in what self-image a particular engagement with educational ICTs would leave. This dictated how they described their
relationships with ICTs in educational settings. Because of this, they established a stronger link between enacting a digital teacher identity and self-preservation than between using ICTs and achieving a pedagogical aim. My argument is that this is due to (1) a dominant view that ICT availability cannot be relied upon as a means for achieving a pedagogical goal by teachers working in an under-resourced context; and (2) the fact that education being still recovering from the 1994 Genocide, priorities abound to the extent that teachers and teacher educators do not expect or fear to be unappreciated for failing to use ICTs, despite existing pro-ICT pledges and pronouncements.

**ICT training of teachers in under-resourced contexts:** One of the main reasons for conducting this study was to contribute to an understanding of teacher education and training in Rwanda and similar contexts where the quality of education is still very low. Researchers have bemoaned the scarcity of research in Africa and the fact that knowledge used in Africa is produced elsewhere (Teferra & Altbach, 2004). Though the study reported here is a small scale, it provides an important contribution to the needed knowledge and understanding of educational practice that would lead to the improvement of the quality of education in under-resourced contexts like Rwanda. This is particularly important with regard to understanding teacher identity because, as previously argued, research on teacher identity “can serve the twin purposes of enhancing teacher professional learning and improving the quality of teaching and learning.” (Cheung, Said, & Park, 2015b, p. xiv).

By highlighting student-teachers’ digital teacher identity negotiation, this study provides a starting point for providing student-teachers with training that supports their development of a digital teacher identity. Such training allows student-teachers to achieve their desired selves while enhancing their potential to use ICTs for educational purposes. Similarly, the spotlight that this research has put on student-teachers use of ICTs allows a reconsideration of how ICTs are used in the educational contexts in Rwanda with a possibility of using this research-generated understanding to create better ICT-mediated learning opportunities on language teacher education programmes. This is particularly important given that a key policy expectation of ICT policies is to improve the quality of education at all levels (MINEDUC, 2016b). Yet, as shown in this study, student-teachers’ ICT experience on the teacher education programme was limited. Therefore improving the understanding of how ICTs are
used by teachers will have a positive incidence on how impactful such a use could be on students’ learning.

Lastly, throughout the findings, it was shown that teacher educators considered this study to “remind” them of what they should be doing in terms of supporting their student-teachers’ development of a digital teacher identity. It is therefore unquestionable that this study’s other contribution is to bring student-teacher’s ICT training to teacher educator’s attention. By raising teacher educators’ awareness of their duties to support and enhance their student-teachers’ ICT skills development—a process that findings show to have started already—their ICT training and experience will improve, leading to the development of a more practice-oriented digital teacher identity.

10.3.2 ICT policies and their implementation

The study shows how local or individual interpretations of policies affect the experience of student-teachers but also the kind of technology-using teachers they aspire to become. Specifically, the study has shown how teacher educators interpret institutional policies in a way that enables them to fulfil their contractual obligation without fulfilling intended goals of using institutionally mandated ICT tools to enhance learning. By helping identify this loophole, the study provides policymakers with evidence that would allow them to improve their formulation of ICT policies and monitoring their implementation effectively. Knowledge of this will enable policy makers to ensure that the design of educational ICT policies at national or institutional levels includes strategies for verifying its effectiveness and implementation from students’ experiences of technology in the classroom, rather than from the teacher’s or teacher educator’s self-reported fulfilment of their performance contracts.

10.3.3 Theoretical contribution

Since its launch in the 1990s, positioning theory has increasingly gained popularity in education because it shows how individuals represent themselves as they pursue different rights and duties associated with the positions they occupy or claim. The use of positioning theory in this study has shown how such a theory can generate an understanding of digital teacher identity negotiation strategies and practices that go beyond teachers’ espousal of their technological pedagogical content knowledge and beliefs. Additionally, some earlier scholars in positioning theory considered it to be only usable with oral discourse, an approach
that has progressively changed. This study adds to the growing evidence supporting the applicability of positioning theory in analysing written discourse as well as other communication artefacts.

Relatedly, Positioning theory has been criticised for lacking clarity (Kayi-Aydar, 2019; Kayi-Aydar & Miller, 2018; Slocum-Bradley, 2010). By using the concepts of position, positioning and storylines to explore the negotiation of digital teacher identities, I have contributed to the efforts of providing more practical examples of the wide-ranging possibilities in which positioning theory can be used and operationalised in research studies aimed at understand the real world (McVee et al., 2021), especially the educational world where assigned positions can affect students’ classroom learning opportunities (Kayi-Aydar, 2014; Kayi-Aydar & Miller, 2018).

10.3.4 Researching as Mentoring

This study shows that research participation can serve as a mentoring and professional development opportunity for participants. Findings from educational research have been seen as having a potential positive impact on those researched (Gutiérrez, Engeström, & Sannino, 2016). Yet, it is not often documented how the process itself benefits study participants. One of the key learning from this study is that participation in research could become a mentoring opportunity for student-teachers with limited mentoring prospects because it enables them to discuss issues of their practice with an interested party (i.e. the researcher). This is an important finding, especially given that in under-resourced contexts like where the study was conducted, material and human resources—including mentors—are hardly available because of the limited funding and low salaries that lead to understaffed schools and teacher education programmes (see for example Mukeredzi and Mandrona 2013). In Rwanda for example, and as discussed in the context description in Chapter 1, there are ambitious plans for education that are stipulated in educational policies and the Vision 2020. This study showed that student-teachers were far from receiving an ideal teacher training or the technology enhanced, quality education that these policies preach and claim usher. The discourses of educational technology adoption and educational quality improvement appear to lag far behind the contextual realities of interns working without mentors and receiving no ICT-related feedback despite policy claims that ICT is the heart of
the education sector. Even the three supervisory visits by their lecturers promised in the internship handbook were not fulfilled, as student-teachers only received one visit by their lecturer during the whole internship. Such a situation makes the need for mentoring for teachers very important, especially novice ones whose sense of identity as teachers is still burgeoning.

This is why the mentoring effect of the researcher was significant because the research provided mentoring opportunities that were expected but never achieved. Because of this, it is important not to conceive research in under-resourced contexts simply as a “fact finding” process in which the researcher’s only job is to “objectively” get data from participants without influencing them or giving them anything back. Instead, research in these under-resourced contexts should at the same time be perceived as a potential mentoring and professional development opportunity for participating student-teachers who oftentimes have no other opportunity to discuss their practice with a qualified professional in their field.

As shown in this study, my insider position and awareness of the educational ICT policies, the language teacher education curriculum and its expectations from students’ ICT practices, as well as the overall school ICT contexts allowed me to engage with study participants effectively by drawing their attention to policy and programme expectations and contextual realities. This knowledge facilitated the establishment of trust between the researcher and the research participants given that “the issue of trust emerges as critical to creating and sustaining successful partnerships.” (Kerstetter, 2012, p. 99). Hence, my ultimate “researcher as mentor” position became possible because of the established trust and led participants to adopt changes or plan for changes in their ICT practices, thereby occasioning their digital teacher identity transformations.

One important observation regarding the mentoring effect of the research is its dependency on the duration of the study. Participating student-teachers indicated that they adapted their use of ICTs and reflected on this as a result of their interactions with me (during the interviews) because they wanted to show a different version of themselves in the next interview. There are three implications for this. First that for research to have a professional and mentoring effect, the researcher has to work with the participants long enough to enable reflection to take place. It is unlikely that a one-time interview design, without a
follow-up would have led the student-teachers to want to change their ICT practices. An upcoming interview served as a motivation to use ICTs and/or adapt their ICT use. The second implication, which is linked to the first, is that for research to have a mentoring and professional development effect, researchers would need to understand fully the needs and challenges of the study participants to be able to take up their dual positions as both researchers and mentors. The third implication is that encouraging research in under-developed contexts could be a means of improving the quality of education in these contexts. This is possible because:

1. researchers are more willing to adapt to the busy schedules of the teachers;
2. teachers who decide to take part in a research study do so volitionally—unlike in structured/institutionalised professional development offerings where participation is often compulsory—and are therefore more open to fully explore and reflect on the area of their practice which the study covers, as was the case with participants in this study;
3. the fact that research studies focus on specific areas—e.g. a digital teacher identity development—makes enacting changes in an identified area more likely. For example, some teacher educators were only interested in pointing out that they would be checking how student-teachers used the ICTs in the internship. This is a small but still important change that would significantly affect their student-teachers’ digital teacher identity development.

Thus, policymakers interested in improving the quality of education in these contexts should also consider encouraging and facilitating educational research as a means of achieving educational change. This should not be a mere reliant on educational research findings but rather using participation in a research process as a means for bringing teachers to engage in reflection on and improvement of their practice.
10.4 Limitations and Recommendations

In the discussion of the methodological choices I made in this study, I pointed out some of the limitations of this study, including the number and roles of the participants. The small number of student-teachers in this study is limiting in that the experiences of the two student-teachers may not be representative of every student-teacher on the programme. This is therefore a reminder that the study’s findings can be used to develop an understanding of similar contexts but cannot be generalised.

Another limitation of the study relates to the type of data used. All the references to the student-teachers’ and their teacher educators’ ICT uses and competencies were not directly observed by the researcher. The reliance on participants’ self-reported data is therefore another limitation because this kind of data can be prone to “subjective bias” (Starkey, 2020). In connection with data-related limitations, my close familiarity with the research context could constitute a limitation. In my reflexivity exercise in Section 10.1, I show how participants saw me, not just as a researcher, but also as someone they positioned variably in terms of technology skills. Because of this, the data reported in this study may have been influenced by this relationship.

Nevertheless, findings of this study warrant a number of recommendations for practice and future research. The study’s findings show that teacher educators did not provide their student-teachers with models of ICT practice, thereby leaving them on their own without role models in their development of a digital teacher identity. It is here recommendable that teacher educators foster an ICT in education apprenticeship of observation whereby they can model for their student-teachers best ICT practices that they could use as examples once they start the internship. This will also require that the teacher education provider ensures that teacher educators are also using ICTs on the programme rather than simply meeting their “performance contract” obligations. A better model of following up teacher educator’s use of ICTs will be needed to ensure student-teacher are better exposed to ICT use which they can therefore use as models for their own future ICT practices (Chere-Masopha, 2018; Howard et al., 2021; Tomlinson, 1999). Future research is needed to identify which models of teacher educators’ ICT practices would suit student-teachers working in under-resourced contexts like the one studied here.
Additionally, given the importance given to ICTs in educational ICT policies, it is important that this is recognised by valuing ICTs on the teacher education through assessment and feedback on student-teachers’ teaching. While student-teachers do internships in schools with limited resources, findings in this study show that students are not completely deprived of access to ICTs. Therefore, their ICT usage efforts should be recognised and teacher educators should discuss ICT integration opportunities and challenges in their post-observation feedback. This will show to student-teachers that ICT competences are a necessary requirement for their identification as teachers. Future research could clarify the skills needed by teacher educators in order to discuss and provide feedback regarding ICT integration with student-teachers working in under-resourced placement schools.

Lastly, researchers have expressed optimism that the increasing access to mobile devices in under-resourced contexts will help solve persistent educational challenges (Gardner, Joubert, Barrett, & Tikly, 2018). Yet, as findings of this study show, teacher educators and student-teachers are yet to integrate the use of these devices in their imagination of the tools available for teachers in their educational context. Even personal devices such as laptops were considered as potential sources of distraction, instead of a boon for pedagogical innovation. This is also complicated further by restrictive policies on mobile phones that participants in this study appeared to implicitly reference. Future research could clarify the effect of restrictive ICT policies—such as the ban on mobile devices—on teachers and teacher educators’ motivation to use ICTs in contexts where the uptake of educational ICTs is still limited.
References


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OLPC Rwanda. (2011b). Welcome to OLPC Rwanda official blog! Retrieved October 1, 2018, from


Appendix I: Descriptive List of Policy documents analysed

<table>
<thead>
<tr>
<th>SN</th>
<th>Author/Owner</th>
<th>Publication Date</th>
<th>Document Title</th>
<th>Scope &amp; Availability</th>
<th>Content Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1°</td>
<td>Republic of Rwanda</td>
<td>2015</td>
<td>SMART Rwanda Master Plan 2015 ~ 2020: A prosperous and knowledgeable society through SMART ICT</td>
<td>National (Published online)</td>
<td>Sets national goals and expectations for ICT adoption, and places education at the heart of the initiative.</td>
</tr>
<tr>
<td>2°</td>
<td>MINEDUC/Rwanda</td>
<td>2003</td>
<td>Education Sector Policy</td>
<td>National (Published online)</td>
<td>Governs the whole education activity in education by providing major guidelines, principles and goals for education.</td>
</tr>
<tr>
<td>3°</td>
<td>Ministry of Education</td>
<td>2007</td>
<td>Teacher Development And Management Policy in Rwanda</td>
<td>National (Published online)</td>
<td>Provides policy guidelines on teacher training, development, recruitment and management at all levels (pre-primary, primary and secondary)</td>
</tr>
<tr>
<td>4°</td>
<td>MINEDUC</td>
<td>2013</td>
<td>Education Sector Strategic Plan 2013/14 – 2017/18</td>
<td>National (Published online)</td>
<td>The document sets the strategic areas of emphasis and development for the education sector in mid-term period and identifies training qualified teachers as an area of emphasis in this strategy.</td>
</tr>
<tr>
<td>5°</td>
<td>MINEDUC</td>
<td>2008</td>
<td>Higher Education Policy</td>
<td>National (Published online)</td>
<td>Regulates the workings of higher learning institutions, including the teacher training institutions where the current study is being conducted.</td>
</tr>
<tr>
<td>6°</td>
<td>MINEDUC</td>
<td>2016</td>
<td>ICT in Education Policy</td>
<td>National (Published online)</td>
<td>Sets the sector-specific ICT goals, expectations, objectives, priorities and challenges for integrating ICT in the Rwandan education system.</td>
</tr>
<tr>
<td>7°</td>
<td>MINEDUC</td>
<td>2015</td>
<td>ICT Essentials For Teachers: Based on the UNESCO ICT Competency Framework for Teachers</td>
<td>National (Published online)</td>
<td>Determines ICT-sanctioned skills and competencies that should be acquired by teachers in order to be able to use ICT in their professional activities in schools.</td>
</tr>
<tr>
<td>8°</td>
<td>MINEDUC &amp; UNESCO</td>
<td>2017</td>
<td>Certification Standards for ICT teacher training initiatives – based on the Rwanda ICT</td>
<td>National (Published online)</td>
<td>Determines the minimum ICT standards that are expected of teachers and that warrant certification.</td>
</tr>
<tr>
<td></td>
<td>Essentials for Teachers</td>
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<tr>
<td>9°</td>
<td>Rwanda Education Board</td>
<td>2018 Guidelines For Teaching Time Table On The Usage Of ICTs Device In Schools</td>
<td>National (Published online)</td>
<td>Guidance on how and when to use ICTs in teaching and learning in schools from primary to upper secondary.</td>
<td></td>
</tr>
<tr>
<td>10°</td>
<td>University of Rwanda - College of Education</td>
<td>2016 &amp; 2017 Programme Descriptions (Consisting of • Programme Specifications • Module Descriptions, • Programme structure)</td>
<td>Institutional (Internal/restricted)</td>
<td>Details of exit profiles, modules to be taught, when and how and the expected student learning</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 2: Analytical Roadmap

<table>
<thead>
<tr>
<th>ANALYTICAL NODES</th>
<th>STORYLINES</th>
<th>POSITIONS</th>
<th>RIGHTS &amp; DUTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1: Content</strong></td>
<td>Purpose of the technology narratives/storylines:</td>
<td></td>
<td>Prepositioning of teachers</td>
</tr>
<tr>
<td>“content” means the “persons”, and “personified concepts” for which the narrator constructs an “identity”</td>
<td>How are they presented/why are the storylines presented?</td>
<td>Available categories/attributes for actors: <strong>Moral orders</strong>: relating actors to purposes of using ICTs, how ICTs should be used, by who and when in schools, judgements about ICT i.e. the good and the bad</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To whom are the storylines addressed?</td>
<td></td>
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<tr>
<td></td>
<td>What relationships to they reveal between actors?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Key Questions to ask the data:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>What is considered to be ICT/technology and what is meant by using technology? Who uses it? when and why?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Types of positioning:</strong> Noting who positions who</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attention to modes of positioning (e.g. self-positioning, prepositioning, prepositioning, interactive positioning, etc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indexing, identifying and acknowledging existence of actors within the sector.</td>
<td></td>
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<tr>
<td></td>
<td>Word choice: Use of content words/phrases</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>References to forms of technology and/or their roles</td>
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<td></td>
</tr>
<tr>
<td>Level 2: What is going on (events)</td>
<td>Contested/Contrasted/rejected technology storylines/narratives</td>
<td>Speech actions/speech acts: what actors are trying to achieve in their narratives</td>
<td>Who are the characters (naming of categories, attributes)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------</td>
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<td>-------------------------------------------------</td>
</tr>
<tr>
<td>[narrator and interlocutor (audience), identities, rights and duties]</td>
<td>What ICT events the narrator chooses to tell? How do these reflect ICT-related actions? Who are they intended for as audience? How are they used to reveal/construct/consolidate identities?</td>
<td>“Use of &quot;social languages&quot; (Gee, 2011)</td>
<td>Actual and/or presumed attributes and categories</td>
</tr>
<tr>
<td></td>
<td>How are the positions distributed? How do the actors (student-teachers, teacher educators) locate themselves within storylines of educational technology use regarding their ability/right to assign/accept assigned positions? Do they change? What makes them change?</td>
<td>Who is doing what and who is acting what? Akin to “Whos-doing-what” (Gee 2011)</td>
<td>Invoking Actions as a member of a category/categorical membership (ICT user/non-user/young/old, etc.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 3: Meanings relevant to wider society/master narratives</th>
<th>Generally accepted storylines about how things should (or shouldn’t) be</th>
<th>(1) Intertextuality</th>
<th>Are there any claimed or acknowledged positions that transcend the teachers’ environment/context/o</th>
<th>Locating the self in the general educational technology storylines</th>
<th>Appreciation of what is possible/could be done and cannot be done from a general point of view (in</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Moral positioning</td>
<td>(1) Intertextuality</td>
<td>(2) Moral positioning</td>
<td>Are there any claimed or acknowledged positions that transcend the teachers’ environment/context/o</td>
<td>Locating the self in the general educational technology storylines</td>
<td>Appreciation of what is possible/could be done and cannot be done from a general point of view (in</td>
</tr>
<tr>
<td>(1/We/they/them, here/there, etc.)</td>
<td>(I/We/they/them, here/there, etc.)</td>
<td>(1/We/they/them, here/there, etc.)</td>
<td>(I/We/they/them, here/there, etc.)</td>
<td>(I/We/they/them, here/there, etc.)</td>
<td>(I/We/they/them, here/there, etc.)</td>
</tr>
</tbody>
</table>
| Do participants reference anything supposedly applicable/valid nationwide/globally regarding ICTs and ICTs use in education? | Reference to norms and practices in the educational context | Invoking generalised positions/duties/identities (Moral positioning/tacit positioning/intentional positioning/self-other positioning) | Language teaching with ICTs in general or in using ICTs | Generalisations, choice of pronouns/ audience/subject  
  
  Tense use: future projections / looking back  
  
  “culturally available stereotypes” (B. Davies & Harré, 1990, p. 50) |

| Reference to norms and practices in the educational context | Invoking generalised positions/duties/identities (Moral positioning/tacit positioning/intentional positioning/self-other positioning) | Language teaching with ICTs in general or in using ICTs | Generalisations, choice of pronouns/ audience/subject  
  
  Tense use: future projections / looking back  
  
  “culturally available stereotypes” (B. Davies & Harré, 1990, p. 50) |

| Generalisations/use inclusive language | **Reference to norms and practices in the educational context** | Invoking generalised positions/duties/identities (Moral positioning/tacit positioning/intentional positioning/self-other positioning) | Language teaching with ICTs in general or in using ICTs | Generalisations, choice of pronouns/ audience/subject  
  
  Tense use: future projections / looking back  
  
  “culturally available stereotypes” (B. Davies & Harré, 1990, p. 50) |
Appendix 3: University of Manchester Ethical Approval

Environment, Education and Development School Panel PGR
School for Environment, Education and Development
Humanities Bridgeford Street 1.17
The University of Manchester
Manchester
M13 9PL
Email: PGR.ethics.seed@manchester.ac.uk

Ref: 2018-4360-6463

25/06/2018

Dear Mr Felix Kwihangana, Mrs Diane Slaouti, Dr Zeynep Onat-Stelma

Study Title: Preservice Language Teachers’ Digital Identity Development in Rwanda

Thank you for submitting your low risk ethics application for the project named above which has now been approved by your supervisor and logged with the Ethics Administrator.

If anything untoward happens during your research or any changes take place then please inform your supervisor and/or programme director immediately.

Please accept this email as confirmation that your low risk Ethical Approval application has been approved and you are now able to carry out your research.

Please let us know if you have any additional queries by emailing:

PGR.ethics.seed@manchester.ac.uk

Yours sincerely,

Dr Sarah Marie Hall

Environment, Education and Development School Panel PGR
Appendix 4: University of Rwanda Recommendation for the study

Executive Secretary
National Commission of Science and Technology
P.O.Box 2285
Kigali-Rwanda

Dear Sir,

Re: Recommendation for Mr Felix Kwihangana to conduct a research study in Rwanda

The above mentioned is a doctoral candidate at the Manchester Institute of Education, School of Environment, Education and Development at the University of Manchester, UK. He wishes to conduct a research entitled “Preservice Language Teachers’ Digital Identity Development in Rwanda.”

Mr Kwihangana has requested for affiliation with UR-CE during the period of his research and we have agreed to support his request on condition that on completion of his research, he will deposit a copy of his thesis with CE. During this period he will closely work with Dr Evode Mukama who is an Associate Professor in the School of Education and who can be contacted at the following email address: [redacted] and this telephone number: [redacted]

We, therefore, request for permission on his behalf to access data sources in his field of survey. Attached please find a copy of his research proposal and other related documents.

Any assistance accorded to him will be highly appreciated.

Yours sincerely,

Assoc. Prof. George K. Njoroge
Principal
Cc:
• Director of Research and Innovation, UR-CE
• Assoc. Prof. Evode Mukama, UR-CE

EMAIL: principal.ce@ur.ac.rw
P.O. Box 55 Kigali-Rwanda
WEBSITE: www.ur.ac.rw

19th September, 2018
Ref. 01/P-CE/Rukara/4441/GKN/gi/2018
Appendix 5: Participant Information Sheet

Preservice Language Teachers’ Digital Identity Development in Rwanda

This PIS should be read in conjunction with The University privacy notice.

You are being invited to take part in a research study that focuses on the training and development of language teachers as effective users of ICTs for learning and teaching. Before you decide whether to take part, it is important for you to understand why the research is being conducted and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for taking the time to read this.

Who will conduct the research?

Felix Kwihangana
Manchester Institute of Education
University of Manchester

What is the purpose of the research?

This study aims at exploring how preservice language teachers negotiate the technology-using teacher identities as assigned to them by education policies and the teacher education programs in the process of preparing them to use ICTs in teaching. The findings of this study will contribute to an understanding of how (and why) Rwandan teachers use technology the way they do and ways of improving ICT integration in schools across the country.

Why have I been chosen?

You are being chosen because you are in one of the following categories:

1. You are a teacher educator on the Language teacher education program at the University of Rwanda and have been training preservice language teachers;
2. You are a preservice teacher about to start a teaching internship in a school in Rwanda where you will teach English;
3. You are a mentor (cooperating teacher) who is working with a student (preservice teacher) doing his/her internship.

Five participants will be selected in each category.

What would I be asked to do if I took part?

If you accept to participate, you will be expected to do the following depending on which category you fall into. If you are a:
Teacher Educator: You will be interviewed ONCE for 45-60 minutes. The interview will focus on ICT usage on the language teacher education program at your institution and how this affects the preparation of your student-teachers into becoming ICT-using teachers in schools after they graduate.

Pre-service teacher: You will be interviewed THREE TIMES, for 45-60 minutes each time. The interview will focus on your experiences with ICTs first as a student, then as a practicing teacher during the internship. The three interviews will be spread over the duration of the internship.

Mentor (cooperating teacher): You will be interviewed ONCE for 45-60 minutes. The interview will focus on ICT usage at your institution in teaching and learning the subject (s) you teach. You will be expected to discuss your expectations from the student-teachers you are mentoring and the available support and guidance you provide them regarding how to use ICTs in teaching your subject. This will also include ways of addressing ICT-related challenges that you may share with your mentees.

What will happen to my personal information?

In order to undertake the research project, we will need to collect the following personal information/data about you:

- Your contact details (for the purposes of planning and organizing the interview)
- Audio-recordings of your interaction with the researcher during the interview. Informal discussions held with the researcher prior to or after the interview are not part of the research data and will NOT be recorded.

Only the research team will have access to your personal information. The research team at the University of Manchester (researcher and supervisors) will have access to interview transcripts for the duration of the study. However, your consent form and contact details will be scanned, encrypted using 7-Zip and stored on the University of Manchester data storage facility for the duration of the study. Hard copies of the consent form will be destroyed immediately after the scanning is complete. All data in this study (transcripts and recordings of your interviews) will be anonymised, encrypted using 7-zip and stored for the duration of the study.

All the recordings and transcripts will be stored in a secure Data Storage facility provided by the university of Manchester. All data will be anonymised as soon as collected. Extracts from this data may be quoted anonymously in the final report and/or academic papers published as a result of this study.

We are collecting and storing this personal information in accordance with the General Data Protection Regulation (GDPR) and Data Protection Act 2018 which legislate to protect your personal information. The legal basis upon which we are using your personal information is “public interest task” and “for research purposes” if sensitive information is collected. For more information about the way we process your personal information and comply with data protection law please see our Privacy Notice for Research Participants.

The University of Manchester, as Data Controller for this project, takes responsibility for the protection of the personal information that this study is collecting about you. In order to comply with the legal obligations to protect your personal data the University has safeguards in place such as policies and procedures. All researchers are appropriately trained and your data will be looked after in the following way:
You have a number of rights under data protection law regarding your personal information. For example, you can request a copy of the information we hold about you, including all the audio recordings and transcripts of the interviews. This is known as a Subject Access Request. If you would like to know more about your different rights, please consult our privacy notice for research and if you wish to contact us about your data protection rights, please email dataprotection@manchester.ac.uk or write to The Information Governance Office, Christie Building, University of Manchester, Oxford Road, M13 9PL at the University and we will guide you through the process of exercising your rights.

You also have a right to complain to the Information Commissioner’s Office, Tel 0303 123 1113

**Will my participation in the study be confidential?**

Your participation in the study will be kept confidential to the study team and those with access to your personal information as listed above.

The interview will be recorded and transcribed by the researcher with no intermediary. Personal information will be removed from the transcripts. Names of places and people in recordings will be replaced by pseudonyms in the transcript. Audio recordings will be password-protected and stored in a university-provided data storage facility for the duration of the study.

**What happens if I do not want to take part or if I change my mind?**

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself. However, it will not be possible to remove your data from the project once it has been anonymised and forms part of the dataset as we will not be able to identify your specific data. This does not affect your data protection rights.

Your Consent for recording the interview is a requirement to participate in the study. However, if you feel uncomfortable during the interview process, you have the right to request that the recording be stopped. This may lead to rescheduling the interview if you still want to remain in the study.

**Will my data be used for future research?**

When you agree to take part in a research study, the information about your health and care may be provided to researchers running other research studies in this organisation. The future research should not be incompatible with this research project and will concern ICT in Education. These organisations may be universities or companies involved in ICT in Education research in this country or abroad. Your information will only be used by organisations and researchers to conduct research in accordance with the UK Policy Framework for Health and Social Care Research. This information will not identify you and will not be combined with other information in a way that could identify you. The information will only be used for the purpose of ICT in Teacher Education and cannot be used to contact you regarding any other matter. It will not be used to make decisions about future services available to you.

**Will I be paid for participating in the research?**

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Participation in this study is voluntary. You will not be paid for taking part in this study.

What is the duration of the research?

- **Teacher Educator:** One interview (45-60-minutes)
- **Pre-service teacher:** Three interviews (45-60 minutes each). Participants will be involved over the whole Internship period and interviews will be conducted at the rate of one interview per term; on the basis that the internship lasts three teaching terms.
- **Mentor (cooperating teacher):** One interview (45-60-minutes)

Where will the research be conducted?

The interviews will take place at your workplace or placement school.

Will the outcomes of the research be published?

A copy of the final report on this study will be submitted to the Ministry of Education in Rwanda. Also, parts of the findings will be published in academic journals.

Who has reviewed the research project?

This project has been reviewed by the **School of Environment, Education and Development (SEED) Ethics Committee**.

What if I want to make a complaint?

**Minor complaints**

If you have a minor complaint, then you need to contact the researcher(s) in the first instance.

- FELIX KWIHANGANA, Email: felix.kwihangana@manchester.ac.uk or
- DIANE SLAOUTI, Email: diane.slaouti@manchester.ac.uk (project supervisor)

**Formal Complaints**

If you wish to make a formal complaint or if you are not satisfied with the response you have gained from the researchers in the first instance then please contact

The Research Governance and Integrity Manager, Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL, by emailing: research.complaints@manchester.ac.uk or by telephoning 0161 275 2674.

What Do I Do Now?

If you have any queries about the study or if you are interested in taking part, then please contact the researcher(s) FELIX KWIHANGANA, Email: felix.kwihangana@manchester.ac.uk

This Project Has Been Approved by the University of Manchester’s Research Ethics Committee [Ref: 2018-4360-6463]
Appendix 6: Consent Form

Participant Consent Form

Preservice Language Teachers’ Digital Identity Development in Rwanda

If you are happy to participate, please complete and sign the consent form below

<table>
<thead>
<tr>
<th>Activities</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I confirm that I have read the attached information sheet (Version 1; Date: 12 June 2018) for the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.</td>
<td></td>
</tr>
<tr>
<td>2 I understand that my participation in the study is voluntary and that I am free to withdraw at any time without giving a reason and without detriment to myself. I understand that it will not be possible to remove my data from the project once it has been anonymised and forms part of the data set. I agree to take part on this basis</td>
<td></td>
</tr>
<tr>
<td>3 I agree to the interviews being audio recorded.</td>
<td></td>
</tr>
<tr>
<td>5 I agree that any data collected may be published in anonymous form in academic books, reports or journals</td>
<td></td>
</tr>
<tr>
<td>7 I agree that the researchers may retain my contact details in order to provide me with a summary of the findings for this study.</td>
<td></td>
</tr>
<tr>
<td>9 I agree to take part in this study</td>
<td></td>
</tr>
</tbody>
</table>

Data Protection

The personal information we collect and use to conduct this research will be processed in accordance with data protection law as explained in the Participant Information Sheet and the Privacy Notice for Research Participants.

Name of Participant ____________________ Signature ____________________ Date __________

Name of the person taking consent ____________________ Signature ____________________ Date __________

[You will sign two copies: 1 copy for the research team (original), and 1 copy for the participant]
### Appendix 7: Interview Guides

#### A. Background Interview Guide—Student-teachers

<table>
<thead>
<tr>
<th>Student-teachers’ Background Interview Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic/Focus</strong></td>
</tr>
</tbody>
</table>
| General opening | • Greetings, reminders about the study  
• Confirm consent to participate and be recorded | Good morning/afternoon… Thank you for accepting to participate in this study The interview will be recorded if that’s okay… Our interview will focus on… |
| Background ICT Influences on self as a technology user | • Childhood ICT experiences  
• Early edtech experiences  
• ICTs in Teacher training | • Tell me about your earliest memories with ICTs  
• What were your first experiences with ICTs in a school setting?  
• Tell me about ICT usage during your training to become a teacher? |
| • Personal approaches to ICTs from experience | • Placement school expectations  
• Expected role in ICT usage at placement school | • Tell me about your anticipation of the school’s ICT usage.  
• What role do you see yourself playing in the use of technology for teaching in this school? |

#### B. Internship Experience Interview Guide—Student-teachers

<table>
<thead>
<tr>
<th>Student-teachers’ Internship Experience Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic/Focus</strong></td>
</tr>
</tbody>
</table>
| • General opening | • Greetings, reminders about the study  
• Confirm consent to participate and be recorded | Good morning/afternoon… Thank you for accepting to participate in this study The interview will be recorded if that’s okay… Our interview will focus on… |
| • Current take on ICT over the internship period | • Influence of school setting in ICT usage  
• ICT Support from mentors Current ICT challenges and negotiated solutions  
• Auto-evaluation of ICT practices over the last semester | Tell me how the school expected you to use ICTs in the last months of Internship  
How have you been using ICTs for your internship?  
Tell me about challenges you have faced and how you dealt with them. |
**C. Teacher Educator Interview Guide**

<table>
<thead>
<tr>
<th>Topic/Focus</th>
<th>What to look for</th>
<th>Phrasing</th>
</tr>
</thead>
</table>
| General opening | • Greetings, reminders about the study  
• Confirm consent to participate and be recorded | Good morning/afternoon... Thank you for accepting to participate in this study. The interview will be recorded if that’s okay... Our interview will focus on... |
| Appraisal of Student-teachers’ ICT readiness | • Perceived student-teachers ICT skills  
• Expected ICT practices from student-teachers  
• Anticipated Student-teachers’ ICT challenges during internship | How skilled do you find these student teachers in terms of technology use?  
How do you expect student-teachers to use ICTs during the Internship period?  
What are the most likely challenges would you anticipate student-teachers will face regarding ICT usage during the internship? |
| Personal approaches to modelling ICT use for student-teachers in teacher education | ICTs Practices  
Feedback for students on ICT-usage during internship visit  
ICT support for student-teachers | How do you prepare your students to teach with ICT?  
To what extend do you require your student teachers to use ICTs in their internship? What support is available for your student teachers regarding the use of ICT in teaching? |