

**How does the Switch of Medium of Instruction (MOI) affect student
Opportunity to Learn (OTL) in Three Tanzanian Secondary
Schools? A Mixed Methods Case Study**

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A thesis submitted for the degree of Doctor in Philosophy

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2025

Author's Declaration

Words (exclude reference, footnote and endnote): 86063

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Abstract

The question of which language to use as the medium of instruction (MOI) in education has been widely debated in Tanzania for decades. One position is that mother tongue-based education is a critical part of high-quality education (Trudell, 2016a). Besides, many scholars have argued, that the current language policy (use of Swahili as MOI in the primary school and a sudden switch to English in the secondary school) in Tanzania leads to severe pedagogical limitations. However, these arguments have concentrated on debating the language policy itself, without sufficient attention to how MOI affects Opportunity to Learn (OTL), particularly in the era of “education for all” and basic education, which includes secondary education as a universal sustainable development goal.

This research investigates how the sudden switch of MOI affects student OTL in Tanzanian secondary schools: community, private and public schools. OTL was captured through an evolving learning evaluation tool, which has three dimensions: (1) content coverage, (2) instructional time, and (3) quality of instruction. This study was a multi-site case study of the three schools in Songea Municipal Council, the capital council of Ruvuma Region in southern Tanzania. Data collection occurred in the years between 2021 and 2022, employing methods such as surveys, classroom observations, and semi-structured interviews with 234 students and 14 teachers.

The findings reveal that all three perspectives included in the OTL are negatively affected by the switch of MOI in all three types of schools although the impact varied by school type. Teachers have adopted ad-hoc techniques for coping with this challenge through code-switching, code mixing, and translation, despite these practices might contradict to government guidelines and policies. The research recommends that policymakers reevaluate the current MOI policy and consider actively incorporating translanguaging strategies in multilingual classroom settings, which could potentially enhance student OTL.

Impact Statement

This PhD thesis takes an interpretative approach, and provides, to my knowledge, the first examination of the impact of switching the Medium of Instruction (MOI) on student Opportunity to Learn (OTL) in three different types of Tanzanian secondary schools. Previous research has shown that the current MOI policy poses a threat to Tanzanian students' learning; however, it has not specifically examined MOI impact on OTL. OTL refers to circumstances and conditions, and resources provided to students that enable them to fully access and engage with the curriculum and achieve the intended learning outcomes. Key components of OTL include curriculum coverage, instructional time, learning resources, time on task, and equity. This thesis has made a significant contribution to the understanding of how the switch in MOI influence OTL across different types of secondary schools, a topic that has not been extensively explored in the existing literature.

This study underlines the benefits of translanguaging strategies in building proficiency in both the home language and English, while deepening content understanding and retention. These insights may be of assistance to Tanzanian policymakers and officials in other multilingual contexts in considering the formal integration of translanguaging into the curriculum and providing teacher training. The findings are also relevant for teachers and parents, especially those who may undervalue the role of students' first language (L1) in supporting second language (L2) learning and academic success.

Additionally, the research highlights the connection between MOI and broader social equity issues. MOI is not just a linguistic choice; it has profound implications for students' learning opportunities and educational equity. These findings may be valuable to Tanzanian officials working to achieve and monitor Sustainable Development Goal 4 (quality education), as they highlight the inseparable link between MOI, educational quality, and equity.

Furthermore, this research offers a more critical and comprehensive understanding of OTL, an evolving concept originally proposed in the U.S., within the Tanzanian context. The definition of OTL in this research builds on the work of previous

scholars and recognises the undivided connections among the three dimensions of OTL(content coverage, instructional time and quality of instruction). These dimensions have potential applicability in other low and lower-middle income countries. The Tanzanian government, along with other Sub-Saharan African (SSA) countries, could also incorporate the OTL indicators used in this research to create an effective monitoring and evaluation framework.

The impact of this research extends beyond academia, policy and practice. Collaborating with a local Research Assistant (RA) during the Covid-19 led me to reflect deeply on my positionality as a researcher and provided valuable experience in conducting research in international education policy and development. This experience not only equipped me with practical skills and knowledge of conducting research abroad but also helped me decolonise my work by integrating Tanzanian perspectives and grounding my research in local knowledge and context. I have shared these insights with fellow PhD students through departmental events. This research has also been presented at the UCL IOE Doctoral Conference and 2024 BERA Annual Conference in Manchester.

Acknowledgements

I would like to express my deepest gratitude to my supervisors Prof Moses Oketch and Dr Simone Datzberger for their unwavering guidance, support and understanding. This research could not have been completed without their insightful feedback and continuous encouragement. Apart from the thesis itself, I also made personal development as a researcher through our inspirational conversations.

I would like to extend my sincere thanks to the UCL- Chinese Scholarship Council- UCL for sponsoring this doctoral research. Additionally, much appreciation goes to UCL Turing Scheme for providing funding for fieldwork.

Thanks should also go to the Open University of Tanzania for hosting me as a visiting researcher. Special thanks to all teachers and students whom I worked with in Tanzania and the Research Assistant, Mr. Hamis Juma, who collected data for me during the pandemic. The fieldwork could not have gone smoothly without their cooperation.

Finally, I wish to thank my family for their support and encouragement throughout my study. Their belief in me has kept my spirits and motivation high during this process.

List of Abbreviations

CALP	Cognitive and Academic Language Proficiency (CALP)
CCM Tanzania)	Chama Cha Mapinduzi (Revolutionary Party: Political Party of Tanzania)
COCO	Comrades of Children Overseas
COSTECH	Tanzania Commission for Science and Technology
CSEE	Certificate of Secondary Education Examination
DFID	Department for International Development (of British Government)
EMAC	Educational Materials Evaluation Committee
EMI	English Medium Instruction
ESL	English for Second Language
ESR	Education for Self -Reliance
ESRC	Economic and Social Research Council
ETP	Education and Training Policy
FCDO Government)	Foreign, Commonwealth and Development Office (of British Government)
FTNA	Form Two National Assessment
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GPA	Grade Point Average
HCT	Human Capital Theory
ICT	Information and Communications Technology
IDI	In-depth Interview
JSEIP	Junior Secondary Education Improvement Project
KEI	Knowledge Exchange Impact
LCA/P	Learned Centred Approach/Pedagogy
LOITASA	Language of Instruction in Tanzania and South Africa

LOLT	Language of Learning and Teaching
LSP	Language Supportive Pedagogy
MC	Municipal Council
MDGs	Millennium Development Goals
MLE	Multilingual Education
MoEC	Ministry of Education and Culture (of Tanzanian Government)
MoEST	Ministry of Education and Science and Technology (of Tanzanian Government)
MoESTVT	Ministry of Education, Science, Technology and Vocational Training (of Tanzanian Government)
MoEVT	Ministry of Education and Vocation Training (of Tanzanian Government)
MOI	Medium of Instruction
NAACP	National Association for the Advancement of Coloured People
NECTA	National Examination Council of Tanzania
NGOs	Non-Governmental Organization(s)
ORCHR	The Office of the High Commissioner for Human Rights
OTL	Opportunity to Learn
OUT	Open University of Tanzania
PO-RALG	The President's Office, Regional Administration and Local Government (of Tanzanian Government)
RA	Research Assistant
SACMEQ	The Southern and Eastern Africa Consortium for Monitoring Educational Quality
SBT	School-Based Training
SDGs	Sustainable Development Goals
SDI	Survey Delivery Indicators
SEA-PLM	Southeast Asia Primary Learning Metrics
SEDP	Secondary Education Development Program

SES	Social Economic Status
SEWO	Self-Employed Women's Organization
SSA	Sub-Saharan Africa
TAI	Test Anxiety Inventory
TANU	Tanganyika African National Union
TELTA	Tanzanian English Language Teachers' Association
TIA	Teaching in Action
TIE	Tanzanian Institute of Education
TIMSS	Trends in International Mathematics and Science Study
TLM	Teaching and Learning Material
TPR	Total Physical Response
TSh	Tanzanian Shilling
TTT	Time to Teach
UDSM	University of Dar es Salaam
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
UNIDO	United Nations Industrial Development Organization
URT	United Republic of Tanzania
USAID	United States Agency for International Development
ZPD	Zone of Proximal Development

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Chapter 1 Introduction

1.1 Student Academic Performance in Secondary School

Implementing the Education and Training Policy (ETP) 2014, the Tanzanian government issued Circular 5 on November 27, 2015, announcing that public secondary education is free for all children. All fees and payments were to be abolished as part of this change. The Circular stated: “Provision of free education means pupils or students will not pay any fee or other contributions that were being provided by parents or guardians before the release of new circular” (United Republic of Tanzania, 2015). With the implementation of the Secondary Education Development Program (SEDP), educational opportunities have expanded for a large number of students.

However, although more schools were built with an increasing number of students enrolled; it is claimed that learning outcomes have been declining in recent years (HakiElimu, 2012). A 2012 study illustrated that from 2006 to 2012, the pass rate for the Certificate of Secondary Education Examination (CSEE) declined from 89% to 34% (Gaddis and Joshi, 2015; Todd and Attfield, 2017). According to 2013 test results from Form Four National examination, half of the final year students did not pass the exam (Beckford, 2019). The exam was often referred to as O-Level and students need to pass it and then be eligible for enrolling into higher secondary education. Despite an overall increase in pass rates over recent years, a significant proportion of students still fail, with 64.9% of students not scoring Grade I to III, a prerequisite to continue in upper secondary schools (Mosenda, 2021). Based on the data collected from the National Examination Council of Tanzania (NECTA), pass rates for the National Form Four Examination results in maths were 31%, 24% and 19% for the three years from 2007 to 2009, for biology they were 46%, 41% and 43%, and for physics they were 29%, 26% and 27% respectively (Hamilton et al., 2010).

Not only have results in STEM subjects got worse, but secondary student English proficiency is not as promising as expected, which severely limits student learning, since they use English as the medium of instruction (MOI) in secondary school

(Brock-Utne and Holmarsdottir, 2004; Criper and Dodd, 1984; Rubagumya, 1990). The policy change means students are required to go to school, but there is not much actual learning occurring based on the standardised test results noted above. However, it could be argued that tests are not the fairest and most robust indicator to evaluate how much learning takes place, and the quality of education cannot be assessed only from an outcome perspective (Pascoe et al., 2020; UNESCO, 2012a).

Researchers have explored other factors leading to poor academic performance, which include irresponsive parents (King, 2013); crowded classrooms (Sumra and Rajani, 2007; UNICEF Tanzania, 2019); poor school conditions or infrastructure (Joyce-Gibbons et al., 2018; Ngwaru and Oluga, 2015), a lack of trained teaching staff, unpleasant working conditions and, teaching commitment (Raja and Burnett, 2004); textbook and other learning resource scarcity, such as labs (Fredriksen et al., 2015; Gaddis and Joshi, 2015; King, 2013); a lack of support for students with special needs (Human Rights Watch, 2017; Lyimo and Mapunda, 2016) and pressure faced by secondary schools to accommodate more students (Human Rights Watch, 2017), as identified by policymakers, researchers and NGOs worldwide.

Alongside the above factors, one challenge faced by both teachers and students is the difficulties entailed in the transition from primary to secondary school. One known barrier to successful and widespread transition to secondary school is the current language policy and the fact that students are confronted with teaching in English for the first time when they transition to secondary school. Based on recent statistics from *2021 Tanzania in Figures* presented in Table 1-1 (National Bureau of Statistics, 2022), 95.2% of school-aged pupils are enrolled in public primary schools, where instruction is all conducted in Swahili. Only about 4.8% attended private primary schools in 2021 where English is generally the main medium of instruction (Komba and John, 2015).

Table 1-1 Number of pupils enrolled in public and private primary schools in Mainland Tanzania from 2017 to 2021

Types of primary Schools	2017	2018	2019	2020	2021
Public	8,969,110	9,717,309	10,174,237	10,460,785	10,687,593
% Change	7.5	8.3	4.7	2.8	2.1
Private	348,681	394,362	431,193	465,111	509,195
% Change	17.4	13.1	9.3	7.9	8.7

Total	9,317,791	10,111,671	10,605,430	10,925,896	11,196,788
The percent of students enrolled in private vs public primary school % ¹	3.89	4.06	4.24	4.45	4.76

Source: Ministry of Education, Science, Technology and Vocational Training (MoESVT), 2022.

The current language policy in Tanzania has followed the Education and Training Policy (ETP) 1995 established by the Ministry of Education and Culture (MoEC), which proclaims,

5.2.3 The medium of instruction in pre-primary schools shall be Kiswahili, and English shall be a compulsory subject (p. 35).

5.3.7 The medium of instruction in primary schools shall be Kiswahili, and English shall be a compulsory subject (p. 39).

5.4.9 The medium of instruction for secondary education shall continue to be English, except for the teaching of other approved languages and Kiswahili shall be a compulsory subject up to ordinary level (p. 45).

It implies students are confronted with using English as MOI for the first time when they start their secondary education. Joyce-Gibbons et al. (2018) explore Tanzanian secondary students' school experience and investigated challenges they face during the transition period. They first identified challenges faced by many sub-Saharan Africa countries, such as bullying and attrition caused by financial pressure, negative family attitudes towards education and risk of pregnancy; then articulated that the issue of MOI was specifically related to the Tanzanian context. For example, as many as 50% of students in Standard 7, the last grade in primary school, were unable to read English at Standard 3 level. The findings were in line with Uwezo (2016, 2017) which has revealed that only 13% of Standard 3 pupils could read a Standard 2 story in English and 56% could read a Standard 3 Swahili story.

MOI problem is particularly urgent in Tanzania as the majority of primary students are enrolled in government managed public primary schools where Swahili is the MOI. Reviewing the data covering a period of 5 years from 2017 to 2021, it can be observed that although the percentage of pupils enrolled in private primary schools increased slightly from 3.89% in 2017 to 4.76% in 2021, public/government primary

¹ The percentage of students enrolled in private vs public primary school was calculate by the researcher based on given data.

schools are the mainstream. Taken together, the findings of Joyce-Gibbons et al., (2018) and Uwezo (2016, 2017), along with the fact that most Tanzanian children enrolled in Swahili medium primary schools, serves a starting point to provide a rationale for the importance of this Tanzania-focused research on MOI and its impact on OTL.

1.2 Research Questions and Rationale

1.2.1 Research Questions

Before stating the research questions addressed in my thesis, it is important that I set the scene. The debate related to the MOI in Tanzania has lasted for decades and is ongoing. Brock-Utne (2014) describes this as “the least appreciated of all the major educational problems” (p.4) because it was neither taken seriously in the new World Bank Strategy, which plans to switch “education for all” to “learning for all”, nor in the preparation to meet the Millennium Development Goals (MDGs). She reinforces the idea that the quality of education cannot be separated from which language is used as the MOI, noting that the concepts of “education for all” and “learning for all” will both be meaningless if the language environment is not taken into consideration (Brock-Utne, 2014). UNESCO (2016) provides more evidence in a report entitled “*If you do not understand, how can you learn?*” There is a large number of published studies demonstrating (e.g., Kioko, 2014; The World Bank, 2021c; Trudell, 2016a, 2016b) that students should be taught in a language they can understand; otherwise, they are prevented from acquiring critical reading, writing, and self-confidence abilities and would suffer from high dropout and repetition rate.

The decline in education quality has become an issue of public concern in Tanzania. The work by Brock-Utne (2014, 2007a, 2007b, 2001) and Qorro (2006, 2013) demonstrate that MOI is one of the factors negatively affecting student academic achievement. Their arguments have been built on the well-supported claim that MOI plays a major role in quality education (Trudell, 2016a). However, previous research and existing literature have mainly analysed the issue from the language perspective, but have not linked it to OTL. In not doing so, there is a gap which reflects an access problem, especially in the era of “education for all” that can be

traced to MOI. It is necessary here to briefly clarify what is meant by Opportunity to Learn. The term OTL can be traced back to the 1960s in the United States and aims for creating measurement methods for education stakeholders to account for the variations in student performance on exams (Foshay et al., 1962; Husén, 1967). In the initial literature, the term tends to be used to refer to the amount of time dedicated to teaching within a school's schedule (Carroll, 1989, 1963). The meaning of the term has evolved over time. The broad use of the term OTL sometimes to refer to the overlap among engaged time, content and quality (Comber and Keeves, 1973; Husén, 1979, 1967); or content coverage and the quality of the subject curriculum in developed countries (Carnoy et al., 2015). Since the definition of OTL varies among researchers and proposed in developed countries, it is important to clarify how the term is used in developing countries where this research is based. According to a definition provided by Reeves and Drew (2013), OTL refers to the amount of time that students are exposed to the curriculum in a given academic year. Carnoy et al. (2015) define OTL as the curriculum coverage (student exposure to mathematical concepts). I aim to examine the effects of the switch in the medium of instruction (MOI) from Swahili into English in Tanzanian secondary schools through the lens of OTL which has three dimensions: content coverage, instructional time and quality of instruction. Specifically, this research is guided by the following two questions. (The detailed overview of OTL is provided in **Chapter 2.4**)

1. How does Tanzania's MOI policy affect student OTL in terms of instructional time, content coverage and quality of instruction in secondary schools?
2. How do the effects of MOI on OTL vary by school types (community, private and public schools), and what may account for this variation?

1.2.2 Research Rationale

This section describes what the research intends to address and explain why this is important. First, the current language policy on MOI in primary and secondary schools has caused education access and equity concerns, such as the declining academic performance seen when top performing students are compared with those whose performance is at the bottom when the MOI is English (Galabawa and Lwaitama, 2005). While concerns have been raised, this issue has received little

attention in the research. In Tanzania, education at secondary school level is conducted in English, an unfamiliar language to many students. English is spoken by only 5% of the population as a second language, while students and teachers use Swahili in their social life all the time; this MOI policy severely hinders productive learning (Broch-Utne, 2009; UNICEF, 2016). In addition to this, private schools dominate the league table of top performing schools, with only two public schools in the top 20, indicating that students from the public schools are disadvantaged (Istoroyektikti, 2016). The findings align with previous research indicating “a small group of students succeed while the vast majority sinks” (Brock-Utne, 2007a, p. 509). UNESCO et al. (2015) note that children from poor households are also more likely to attend lower-quality schools. For those who go to school, their academic achievement is unsatisfactory. Uwezo’s (2011) reports have also clearly shown that most children finishing primary school do not have the language ability to engage in productive learning in English medium secondary schools, which are only benefitting the minority of students who go to private primary schools. It is evident that students are going to school; however, it does not mean they will become well educated people.

Second, there is concern about the implications of using standardised examinations to measure the quality of education. This is because learning and teaching are complex processes, and academic outcome/standardised tests are not always reliable ways of evaluating whether actual education has taken place. Empirical research has demonstrated that academic related stress can reduce academic attainment and student confidence. In the short term it can increase repetition and dropout rates. In the long term, it can reduce the possibility of sustainable employment (Pascoe et al., 2020; UNESCO, 2012b). High stakes exams are often correlated with negative emotional capabilities such as anxiety and depression. The Test Anxiety Inventory (TAI) survey, developed by Spielberger (1980), and administered by Alemu and Feyssa (2020) to 300 Ethiopian secondary students, found that anxiety can lead to poor academic performance. In their research, female students expressed a higher level of anxiety than male students. Counselling services are recommended to help students. Although the conclusions may be questioned for failing to demonstrate a strong negative relationship between test anxiety and performance ($r=-0.30$), interviews with teachers have supported the

initial findings. For example, one teacher stated that "some students are stressed by the time limitation of a test because they are not sure they will complete the test within the time given" (p. 546).

Instead of measuring student achievement through their annual exams scores, I have decided to examine the impact of the switch of MOI on students in a relatively low stakes environment. A recent study by Adamson (2022) demonstrates how anxiety and stress relate to MOI via classroom observation. Building on previous research which mainly attributed student unwillingness to speak in English classroom as their insufficient understanding of the MOI. Adamson (2022) found that being laughed at by their peers when making mistakes is another important factor. After a detailed ethnographic study in two Tanzanian secondary schools, she found students demonstrated their nervousness and discomfort by being passive or remaining silent when teachers ask them questions. Even if they know the correct answers. The classroom environment also deteriorated when teachers received no response from their prompts. It can be inferred that students might miss valuable instructional time to cover the content as they would be asked to leave the classroom and stand outside. This punishment is used by teachers to control and manage the classroom. As a result, these negative emotions, such as feeling fear and shame, further restrict students from participating in classroom and leads to compromised quality of instruction. The application of OTL (instructional time, content coverage and quality of instruction) allows this research to study the intricacy of the MOI policy in Tanzania through real classroom observation in a way that standardised tests would fail to capture.

The third rationale is based on my personal experience following an exploratory research trip to Songea, Tanzania in July 2019. A sign on a headmaster's door in a community school I visited read "No English, No service". Unlike government-funded public secondary schools and fee-paying private schools, community schools are funded by external donors, and schools are within walking distance of where most of the students live; lunch and dinner are provided. I spent around 25 days in Tanzania visiting the community and private schools, talking with students and teachers; from what I saw and experienced, students have a great deal of respect for their teachers. The attitude towards using English as the teaching language is good, which is well

supported by empirical research (Mohr and Ochieng, 2017; Mosha, 2014; Rubagumya, 1989). What contradicts most of the research is that both teachers and students in the community and private school do not regard English as an obstacle to study, even though it can be challenging when they start in Form 1 (first year of secondary school). Some teachers acknowledged that they face difficulties in teaching in English; however, they are willing to learn for their own and their students' benefit. However, a significant problem remains: teachers themselves also acknowledged that they lack English language proficiency. As one teacher explained, "Students need to overcome difficulties caused by the transition, using Swahili is easy, but they will lose more in the future".

1.2.3 Structure of the Thesis

There are seven chapters in this thesis. Chapter 1 provides an introduction, and this is followed by the literature review chapter, which addresses the ongoing debate regarding the MOI in Tanzania since the country's independence from the United Kingdom in the 1960s. The first part of the literature review chapter includes a brief introduction of the language policy during Tanzania's colonial period. The second part of the chapter starts with an introduction of Tanzanian history and then draws on both Tanzanian and international literature (e.g: Brock-Utne, 2013, 2003; Brock-Utne et al., 2019; Qorro, 2013; Roy-Campbell, 1992; Roy-Campbell and Qorro, 1997) and reports from local and international organization such as UNESCO, UNICEF and UWEZO to provide a thorough understanding of how the MOI varied across different times in history.

Instead of focusing exclusively on literature from Tanzania, in Chapter 2 section 3, I also critically engage with contemporary global literature on multilingual education with a focus on how students talk, write and read as well as how teachers talk. This broader engagement is necessary and valuable as it allows me to explore sociolinguistic theories and gain a comprehensive understanding of effective language practices across different multilingual contexts, such as other Sub-Saharan African (SSA) countries that might share similarities with Tanzania. Additionally, the focus on students might strengthen the literature that may emphasise teacher behaviour in discussions of MOI. I also discuss two contrasting language ideologies:

monoglossia and pluriglossia/transglossia, emphasising the negative impacts of monoglossia in multilingual classrooms, such as higher risks of dropping out, reduced possibilities of continuing studies in secondary schools, and epistemic exclusion (Kiramba, 2018). Additionally, I will highlight the positive role translanguaging plays in facilitating student learning and explore other language practices that enhance students' understanding of concepts, foster inclusivity, and challenge anglonormativity (García and Wei, 2015; Guzula et al., 2016; Makalela, 2017, 2015). The fourth section of the literature review focuses on the development of Opportunity to Learn (OTL), a concept first proposed in the United States of America in the 1960s. I then discuss its relevance in developing countries, for example, in South Africa, Botswana and Kenya. I mostly build on previous works of Carnoy et al., (2015); Elliott and Bartlett, (2016); Kurz (2011a, 2011b); Ngware et al., (2014) and Oketch et al., (2012) to explore the meaning, benefits and contribution of OTL and education equity. In my research, OTL is examined across three dimensions, which are i) content coverage, ii) instructional time and iii) quality of instruction.

Chapter 3 outlines the research philosophy and methodology applied in this study. The first section introduces positivism and interpretivism, two major research philosophies, and explains how interpretivism significantly influenced my research interest and research design. Specifically, my research aims to understand the experiences of students and teachers when English is used as the MOI from the perspectives of student and teacher lived experiences who are the experts of their own life. Following this, I justify the use of a mixed research approach, including surveys, classroom observation and semi-structured interviews. This section critically examines the strengths and weaknesses of each method and how they complement each other to provide richer insights into my research questions.

In the third section of this chapter, I provide detailed information on how I used convenience and snowball sampling strategies to select the three participating schools in Songea Municipal Council (MC). I also draw on Gross Enrolment Rates (GER) and national/local examination results to demonstrate how these three schools compare with Tanzania Mainland as a whole. Then I also provide reflections on myself, a Chinese student studying in the United Kingdom and doing research in

Tanzania, which includes how my personality and experience of learning English in China, and the United Kingdom affects this research. Additionally, due to the impact of the Covid-19 pandemic and subsequent travel restrictions, it was necessary to involve a research assistant in the fieldwork. This chapter offers insightful reflections into the positionality of three involved parties (myself, the research assistant and the participants). The experience highlights the benefits and challenges of working with a local research assistant. The process of ethical approval in the United Kingdom and Tanzania have also been included. Chapter 3 concludes by discussing the data analysis process.

The next three chapters (Chapter 4-6) present the findings and analysis. Chapter 4 starts with a rich description of each school, including information about the participants. This chapter addresses the first research question by using aggregated data from surveys and interviews, focusing on the three key elements of the OTL framework: content coverage, instructional time, and quality of instruction. A major finding is that all three aspects of OTL were negatively impacted by the switch in the MOI across different types of schools. Additionally, the current language policy appears to promote a monoglossic language ideology in the classroom through some extent of subtractive model.

Chapter 5 continues to address the first research question but shifts the focus to data collected from three repeated classroom observations, with an emphasis on the quality of instruction. The use of English as the MOI often led to a teacher-centred approach, contrary to the recommendations of the syllabi, and failed to promote meaningful student talk. This limitation restricted opportunities for students to interact with peers and teachers, thereby reducing their OTL. While translanguaging strategies were observed and reported as effective in facilitating learning, they were not officially encouraged. This oversight may ignore the inevitability of moving forth between languages used for social interaction and the target language for academic learning in multilingual settings.

Chapter 6 addresses Research Question 2: "How do the effects of MOI on OTL vary by school type (community, private, and public schools), and what may account for this variation?" This chapter uses disaggregated survey and interview data to

compare the differences between schools, focusing on the variations that emerge. The analysis reveals that, while the current MOI negatively impacts student OTL across all three school types, the extent of the impact varies. These differences might be attributed to varying levels of resources and the internal and external support systems available to each school type.

Chapter 7 concludes the thesis by discussing the significance and contributions of this research to the current literature, as well as its relevance to stakeholders such as teachers and policymakers. The chapter also reflects on the strengths and limitations of the OTL framework and offers recommendations for future research.

Chapter 2 Literature Review

Introduction

In this chapter, I first introduce the background of United Republic of Tanzania and then review some of the prevalent translanguaging strategies adopted by Tanzanian teachers, such as code mixing, switching and translation. Considering that many students in the Sub-Saharan African (SSA) area will experience a MOI switch at some point of their formal education, I also engage with various language practices and theories discussed in the literature on multilingual education. Particularly, there is a large volume of published studies describing the positive role of translanguaging plays in humanising the educational experience and offering both cognitive and social benefits in bilingual and multilingual classrooms (Childs, 2016; Makalela, 2019, 2015).

This chapter moves on to review literature in relation to MOI and OTL in the Tanzanian context. The work of Brock-Utne et al. (2002) is influential in the discussion of MOI in Tanzania. They argued that students should study using a familiar language and found the continued use of English as MOI in Tanzania secondary school to be unsatisfactory based on classroom observation and interviews with stakeholders. Their argument was also echoed by many other researchers, including Qorro (2013); Roy-Campbell and Qorro (1997) and Rubagumya (2010, 1991, 1990), who have separately recommended for the use of Swahili as the teaching language in Tanzania schools. Carnoy et al. (2015) conducted an empirical study on the OTL in relation to country context. They found that school resources, in addition to national historical context, play an important role in student academic performance in Botswana, Kenya and South Africa. Students are more likely to have higher learning gains if teacher skills and quality are improved. This work is relevant to studying MOI and OTL in Tanzania for the following reasons: first, it provides an operational OTL framework in developing countries; second, it makes use of multilevel modelling, with differences in student achievements divided into different levels. Compared with traditional regression models, multilevel modelling acknowledges the hierarchical data structure, thus, producing a more accurate prediction and more nuanced interpretation. Considering

the reality that I do not have access to such a large sample size and manpower to conduct cross-country research, this project is not a replica of what Carnoy et al. (2015) and Oketch et al. (2012) did. Instead, I undertake a relatively small-scale research project inspired by these two studies methodologically and conceptually.

2.1 Background on United Republic of Tanzania and its Landscape of Secondary Schools

Located in East Africa, United Republic of Tanzania (URT) is bordered with the Indian Ocean to the East; Kenya and Uganda to the North; Rwanda and Burundi Democratic Republic of Congo to the West; Zambia and Malawi to the Southwest and Mozambique to the South (National Bureau of Statistics and Ministry of Finance and Planning, 2023). (Figure 2-1). URT is a unification of Tanganyika and Zanzibar, an island 30 kilometres away from the Tanzanian mainland. Tanganyika was colonised by Germany from 1880s to 1919 and then was under British administration from 1919 until 1961 when the country gained independence. Zanzibar gained independence at the end of 1963; and the Republic of Zanzibar was established in January 1964. Three months later, the two areas, Tanganyika and Zanzibar formed the Republic of Tanzania in April 1964. Mwalimu Julius K. Nyerere served as the first president of Tanzania and introduced Ujamaa (familyhood) 'philosophy' through the Arusha Declaration in 1967 to promote equality and social justice (Nyerere, 1967).

According to the latest data from the National Bureau of Statistics and the Ministry of Finance and Planning (2022), URT has a size of 945,500 square kilometres (Tanzania Mainland 881,300, Zanzibar 2,700, Inland Water 61,500). As of 2021, the population of Tanzania stood at 63.58 million, which is five times greater than the population recorded in 1967. The population has been growing at a rate of approximately 3% per year. The majority of Tanzanians live in rural areas, with around 37% of the population (22.1 million) living in urban areas. This is below the world average of 56% (The World Bank, 2022a), and the Sub-Saharan African (SSA) countries average of 42% (The World Bank, 2023). Young people are the predominant demographic in Tanzania, and their proportion is rapidly growing (United Nations World Population Prospects, 2022). Based on recent demographic data, over 30% of Tanzania's total population consists of individuals under the age of

18. Additionally, those under the age of 30 make up an impressive 70% of the population. In 2021, the median age in Tanzania was 16.8 years old compared to the average of 30.3 years old worldwide (Ritchie and Roser, 2019; United Nations World Population Prospects, 2022). This makes young people a clear majority in Tanzania with the proportion of them growing rapidly (United Nations World Population Prospects, 2022) There are 31 regions in Tanzania (26 in Mainland and 5 in Zanzibar). The capital city is Dodoma and Dar es Salaam remains the largest city for commercial activities (National Bureau of Statistics and Ministry of Finance and Planning, 2023). Tanzania's gross domestic product (GDP) as of 2021 was 67.84 billion USD with a 4.3% annual growth rate. The GDP Per capita in 2021 was 1099.3 USD (The World Bank, 2021b, 2021c).

Figure 2-1 Administrative Map of United Republic of Tanzania



Source: The map was adopted from One Planet Nations Online² (One Planet Nations Online, n.d.) and Education for All 2015 National Review (MoEVT, 2014).

The Tanzanian education system follows a 7-4-2-3 structure, with seven years of primary education, four years of lower secondary school and two years of advanced secondary education (Table 2-1). Overall, the literacy rate for adults (age 15 and above) as of 2021 is 83%. For young people aged 15 to 24, the percentage is slightly higher at 88% with similar levels for males and females (UNESCO Institute for

² <https://www.nationsonline.org/oneworld/map/tanzania-administrative-map.htm>

Statistics, 2023). Students who successfully complete 13 years of education are allowed to take the Advanced Certificate Exam and if their grade meets the entry requirement, they can go on to study at a university or college for 3-4 years.

As a multilingual country with more than 120 languages within its borders, independent Tanzania inherited the English colonial education system in 1961. Swahili and English have been used as co-official languages, although an individual usually has an African language mother tongue. The majority of the population speaks Swahili as their second language, and it is used for cross-tribal communication (Brock-Utne and Holmarsdottir, 2004; Rubagumya et al., 2022; Tibategeza and du Plessis, 2012; Trudell, 2016b). The choice of a national language can be difficult for a newly formed government since the lack of a lingua franca means the choice of any language will be at the expense of the other languages (Petzell, 2012). Ochieng (2015) noted that the “discussion about the official or national language in Tanzania is a discussion about Kiswahili and English” (p.25). The competition between the two languages is ongoing and as one rises the other falls (Ochieng, 2015, cited by (Rubagumya, 1991; Schmied, 1991).

Table 2-1 The School System in Tanzania.

Level	Number of Years	Medium of Instruction	Note	
University	1	English		
	2			
	3			
Secondary A level	6	English		
	5			
Secondary O level	4	English		
	3			
	2			
	1			
Primary (Age 7-14)	7	Swahili	English taught as a compulsory subject	
	6			
	5			
	4			
	3			
	2	Swahili		
	1			

Source: The table was adopted from Rubagumya, 2010.

According to the Education Act 1978, public schools mean “any school maintained by the Ministry or by a local Authority” (United Republic of Tanzania, 1978, p.7).

Private school means “a school wholly owned and maintained by a Person or body of Persons other than the Government or a local authority”. The 1978 Act did not

provide a specific definition for community schools; however, the Education (Amendment) Act of 1995 defines a community school as “a school owned by a local community or owned by an institution on behalf of the community.” (United Republic of Tanzania, 1995, p.2). Other new changes in the Education (Amendment) Act of 1995 include replace “public school” and “private school” with “government school” and “non-government school”. However, it is worth noticing that in the official document such as *Tanzania in Figures 2021* (National Bureau of Statistics and Ministry of Finance and Planning, 2022), the terms “public schools and private schools” are still widely used; and community school was not listed separately as a different type. But it can be inferred community schools was included in the data as the private schools as they are not managed by the Ministry or a local authority. In this research, the definition of public, private and community school followed Tanzanian Education (Amendment) Act 1995.

Based on the *Tanzania in Figures 2021*, the number of total enrolments in Tanzanian public secondary schools experienced a 6.5% increase from 2016 to 2017 (see Table 2.2). This continued to rise to 2019 with over 2 million students enrolled in public schools. Although the speed slows down from 2019 to 2021 (11.5% to 8.7%), more than 2.3 million Tanzanian children started their secondary schools at public schools. Surprisingly, the number of students enrolled in private schools decreased over the 5-year period from 343,656 in 2017 to 291,981 in 2021. With few students enrolled in private schools from 2017 to 2021 (343,656 to 291,982) relative to public schools (National Bureau of Statistics and Ministry of Finance and Planning, 2022). As of 2021 the ratio of students in public secondary schools relative to private secondary schools is 8.15:1.

Table 2-2 Total Enrolment in Tanzania secondary schools in Mainland Tanzania from 2017 to 2021.

Level	2017	2018	2019	2020	2021
Public	1,565,201	1,814,686	2,023,205	2,172,257	2,379,945
% Change from a year before	6.5	15.9	11.5	7.4	8.7
Private	343,656	333,780	315,252	301,249	291,982
% Change from a year before	1.9	-2.9	-5.6	-4.4	-3.2
Total	1,908,857	2,148,466	2,338,457	2,473,506	2,671,927
The percent of students enrolled in private vs	21.96	18.39	15.58	13.87	12.27

public secondary school ³ %					
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Source: 2021 Tanzania in Figures (National Bureau of Statistics and Ministry of Finance and Planning, 2022).

Table 2-3 below demonstrates that the total number of secondary schools increased in Mainland Tanzania as well from 2017 to 2021. During this 5 year period, there are nearly 500 new schools built. About a third of secondary schools created are not public schools (i.e. not government managed).

Table 2-3 Number of public and private secondary schools in Mainland Tanzania from 2017 to 2021.

Types of Schools	2017	2018	2019	2020	2021
Public	3,604	3,632	3,742	3,863	4,002
% Change	-0.3	0.8	3	3.2	3.6
Private	1,192	1,214	1,259	1,280	1,287
% Change	4.1	1.8	3.7	1.7	0.5
Total	4,796	4,846	5001	5,143	5,289
The percent of number of private vs public secondary school ⁴ %	33.07	33.43	33.65	33.13	32.16

Source: 2021 Tanzania in Figures (National Bureau of Statistics and Ministry of Finance and Planning, 2022).

2.2 Medium of Instruction Teaching Practices

In this section, I provide an overview of the definitions of code mixing, switching, and translation as three forms of language practices in multilingual education used in literature. These are some of the most popular strategies used by teachers when they find that students cannot understand what they are saying. I then explain why I rely on the definition proposed by Brock-Utne and Holmarsdottir (2004) and highlight some of the debates and controversies within the field. Additionally, I present three vivid examples of how code mixing, switching, and translation implemented in real classrooms where English is used as the medium of instruction (MOI). Gaining an understanding of how these language strategies are practiced in multilingual

³ The percentage of students enrolled in private vs public secondary school was calculate by the researcher based on given data.

⁴ The percentage of number of private vs public secondary school was calculate by the researcher based on given data.

classroom can help policy makers, donors, parents, and other education stakeholders who may be distant from the classrooms, and who may hold beliefs that science and mathematics are better taught in English than in an African language (Brock-Utne, 2013) or that the best way to learn English is to use it (Rubagumya, 1990). By understanding these language strategies, they can develop a better perspective of the real situation through teacher talk and student talk; and how the dialogue presents an OTL problem.

2.2.1 The Definition of Code Mixing, Switching and Translation

A large body of literature focuses on the MOI issue in Tanzanian education system. Native Tanzanian researchers like Rubagumya (1989), Roy-Campbell and Qorro, (1987, 1997); Roy-Campbell, (1992) and Vuzo (2012, 2010). As well as some western researchers such as Barrett (1994) from England, Brock-Utne, (2007, 2005, 2002), and Brock-Utne and Holmarsdottir (2004) who are from Norway all have expressed their concern about using English as the MOI in Tanzania from secondary onwards. Classroom observation and interviews have been widely used in research to demonstrate that English is as an obstacle instead of a facilitator in the learning process (Brock-Utne, 2007a, 2007b; Brock-Utne et al., 2019). These researchers have also pointed out that they have observed a widely used pedagogical strategy of code switching, mixing and translation. However, this has not been encouraged by Tanzanian education officials (Vuzo, 2012).

Many researchers have provided their understanding of what they mean by codes, code switching and code mixing. Codes means different languages (Saville-Troike, 1982). Code switching means the “alternating use of two or more codes within one conversational episode”(Auer, 1998, p.1) or “even within the same sentence of that turn” (Myers-Scotton, 1993, p.47). The latter echoing what Crystal (2010) claimed that code or language switching can include sentences or phrases from two different languages into one sentence or paragraph and that this happens very frequently for bilinguals when they speak. According to Mabule (2015), code switching refers to “the shifting by a speaker from language A to language B (p.340)”. Coding mixing, on the other hand, means one purposely include “mixing of two languages without an

associated topic change” and occur more often in multilingual communities (Wardhaugh, 2010).

Although various researchers have provided their understanding on code mixing and switching, in this research, the definition of the code switching, and mixing are based on one proposed by Brock-Utne and Holmarsdottir (2004). They describe code switching as “a switch in language that takes place between sentences also called an intersentential change, such as “Nimesema lile tunda hutenganishwa na zile kamba kamba au nyuzi zinazozunguka mbegu hutumika kutengeneza mafuta (I have said that the fruit is separated from the threads that surround the fruit which are used to produce oil). (Vuzo, 2010, p.9)”. And code mixing has been defined as a switch in language that takes place within the same sentence also called an intrasentential change (2004, p.75)”. For example, “It looks like kinu (mortar) and mtwangio (pestle) and it works like kinu and mtwangio (Rubagumya et al., 1999, p.17).”

One thing to note in the above examples is that they did not articulate whether the code change or switch occurs in both verbal or written communication, or just verbally specifically. However, from most of their examples it seems the switch occurs verbally particularly when teachers are explaining concepts when the researchers conducted their classroom observation. The reason for me to rely on the definition used by Brock-Utne and Holmarsdottir (2004) is because they provide a clear boundary of changes occurring between or within the same sentences, which is not clearly stated from previous research. Sometimes these two concepts (code switching and mixing) are used interchangeably by many researchers. Also because of their extensive research experience in Tanzania .

Appel and Muysken (2005) reported the use of code mixing as negative, often regarded as a sign of lack of language proficiency in either of the languages involved. Whilst code switching is generally regarded as more positive. Myers-Scotton (1993) argues code switching is not necessarily a bad thing as it does not show a deficiency on the part of the speaker, and it could be a result of complex bilingual skills. Put in another way, even a teacher who has a strong command of the English language can still use code-switching to help students who they think are struggling to understand the teaching content (Brock-Utne, 2005; Brock-Utne and

Holmarsdottir, 2004; Vuzo, 2012). Moreover, Sociolinguistic classroom research (e.g., Halliday, 1993) has shown that the back-and-forth movement between formal and informal registers is a common feature of classroom talk in monolingual settings. In multilingual societies, particularly in sub-Saharan Africa, research has demonstrated that this movement also occurs between the languages used for social communication and the target language used for academic learning. However, “In Tanzania, teachers are neither allowed to use code switching nor code mixing even if it “appeared to be a very normal, obvious and necessary practice” (Vuzo, 2012, p.133).

Language Practice 1: Code Mixing

Based on Brock-Utne’s observation in a Tanzanian geography class in 2004, she concluded that code-mixing is mostly used by teachers who are not language teachers. They also do not have a good command of the language used for instructions.

- Examples of code mixing (The example is taken from Rubagumya et al., 1999, p.18. T is teacher and S is student.)

T: These are used for grinding materials. It looks like what?

S: Kinu (mortar)

T: Kinu and what?

S: Mtwangio (pestle)

T: It looks like kinu and mtwangio and it works like kinu and mtwangio.

What we can learn from the above example is that the teacher does not mind which language the student uses to answer the questions. To make their point clear, the teacher chooses to use code mixing, which includes two languages in the same sentence. If the teacher insists on using English the whole time, it is likely that the class will remain silent and lead to a negative classroom climate. Teachers also do not spend time allowing the students to learn the new English vocabulary or provide corrective feedback, which may slow down the speed of the geography class. In doing so, the teacher would be engaged in English teaching as well as geography teaching. This is also supposed to be a low cognitive demand task. As the student aims to answer the questions correctly without thinking about making connections between the English and Swahili vocabulary.

Language Practice 2: Code Switching

Code switching is generally regarded more positively than code mixing (Vuzo, 2012). In Vuzo's (2012) qualitative study aims to understand stakeholders perspectives on code switching/mixing, top reasons students give for teacher's code-switching from the interview are: 1) to enable us to understand (16%), 2) to ask and answer questions (10%), 3) to explain vocabularies (10%), 4) to explain complex concepts (7%) and 5) to translate (7%) and to give examples (7%). Some students further explained that "Natumia Kiswahili ninaposhindwa kutunga sentensi kwa Kiingereza...I use Kiswahili especially when I cannot construct a sentence in English (p.135). However, Tanzanian teachers are not allowed to use code switching, although they may choose to do so anyway. (The example below is taken from Rubagumya et al, 1999 p.17. T is teacher, Ss are students)

T: When you go home put some water in a jar, leave it direct on sun rays and

observe the decrease of the amount of water, have you understood?

Ss: (silence)

T: Nasema, chukua chombo, uweke maji na kiache kwenye jua, maji yatakuwaje? (I say take a container with water and leave it out in the sun, what will happen to the water?)

Ss: Yatapungua (it will decrease)

T: Kwa nini? (Why?)

Ss: Yatafyonzwa na mionzi ya jua (it will evaporate by the sun's rays)

This conversation takes place in a science classroom. The instruction given by the science teacher may not be very clear. However, I cannot confirm whether it is the teacher's instruction or the students' insufficient English abilities that lead to the silence. What is clear is that when the teacher explains the same concept in Swahili, the students can answer the questions correctly. However, there is no positive reinforcement when the students provide correct answers. After realising that the students have difficulty understanding English, the teacher changes the MOI to Swahili entirely. The teacher's code switching is mainly designed to convey information, since they are a science teacher not an English teacher. Several lines of evidence suggest that the use of code switching is a natural component of bilingual language development, rather

than a deficiency in language ability (Diko, 2023; Dykes, 2018; Mabule, 2019). This view is in line with Li (2007), who highlighted that “balanced bilinguals of this kind (person has to have equal proficiency in both languages) are a rarity(p.5)”. But in the Tanzanian classroom, the use of code switching falls short of promoting bilingualism due to the lack of proficiency in English among both students and teachers, hindering meaningful learning. In the Tanzanian context, teachers resort to code switching because they want the subject matter to be understood by the students rather than teaching entirely in English as required by the policy.

Language Practice 3: Translation

As well as code switching and code mixing, another popular language practice often used by secondary teachers is translation. Teachers translate everything they say in English into Swahili. In November 2001, Brock-Utne performed several classroom observations in a Form 2 (second year of secondary school) classroom (Brock-Utne, 2002). She noted that the teacher said the sentence in English very slowly the first time and then repeated it in Swahili very quickly. In this circumstance, students can understand the content more easily. However, repeating everything will considerably slow down the teaching process. Compared with teaching in Swahili, teaching in English can only cover about half to two thirds of the content. In this situation teachers need to also act as interpreters.

The example below is taken from a field trip Brock-Utne’s field trip in November, 2001 (Brock-Utne, 2002).

The next class we observed was a Form II class that had commerce with a male teacher. He made use of Kiswahili to make students understand. He would say the sentences in English very slowly first and then repeat what he had said more quickly but in Kiswahili this time. On one occasion one of the students then asked him a question in Kiswahili and he answered in Kiswahili and at some length. On the blackboard he wrote ‘daily sales’ four different places and always with two lls. He seemed like a very good teacher, the students were eager and he was very quick to praise them (“excellent girl”, “excellent boy”).

Another issue with using translation is that students may not pay much attention to the information given in English, because it will always be repeated in Swahili. On the one hand, students are not likely to focus on either the English language itself or

the information given in English if they do not understand it. On the other hand, teachers do not have enough time to explain everything in English after the translation. The teachers use these coping strategies not because they want to, but simply because they want to convey the information. Instead of using the interactive pedagogical skills recommended by the syllabus to develop students' cognitive abilities and “eventually lead to active learning students.” (MoEVT, 2005b, p.vi), teachers are forced to rely on traditional approaches, such as rote learning and lecture-based instruction.

Brock-Utne (2012, 2005) suggested that fluency in English is not only associated with overall educational attainment but also linked to future life success, both economically and culturally. She further emphasised that the “education for all” will be an empty concept if the language environment is not taken into consideration. Similarly, through interview with the teachers, Joyce-Gibbons et al. (2018) found that difficulties caused by the language switch are one of the reasons that Tanzanian students drop out during the first and second Forms of secondary school.

This section has examined coding switching, mixing and translation as popular language practices employed by Tanzanian teachers to navigate and manage the complexities of multilingual classrooms. These strategies as integral forms of language practice in multilingual education, have been mainly analysed in the context of teacher discourse. In exploring the intricacies of language practices within multilingual education, it is important to note that these practices are but a subset of a broader spectrum of classroom language approaches. It is also important to be aware that the switching MOI to another language at certain points in the education system is not unique to Tanzanian students (Bowden and Barrett, 2022). Fluency in a second language, such as English, is crucial for many children globally in terms of university access and their potential in the labour market (Taylor and von Fintel, 2016). Examining the experiences and practices of multilingual education in other contexts is crucial because it may provide different insights into how student and teacher react in multilingual classrooms, along with effective strategies that transcend cultural and geographic boundaries. The next section moves on to consider other classroom language practices in multilingual education and how students and teachers react with an emphasis on student talk. This exploration

draws upon literature from a diverse range of countries (i.e. Cameroon, Ethiopia, Ghana, Kenya, Netherland, South Africa, Uganda, etc.), providing a comprehensive overview of the varied approaches within multilingual educational contexts.

2.3 Understand Language Practices in Multilingual Education

In the previous section, I examined some of the prevalent language practices adopted by Tanzanian teachers. While the focus of this research is on the MOI from a pedagogical and developmental perspective, it is essential to acknowledge the variety of approaches and theories discussed in the literature on multilingual education (MLE). Most students in Sub-Saharan Africa (SSA) area experience the MOI switch at some stage within the basic education cycle, and being multilingual is a distinctive skill for people living in this area (Heugh, 2019).

Language plays a significant role in shaping one's identity. Additionally, one's perception of how others use language are influenced by societal factors. Language is the foundation of all learning. According to Vygotsky (1978)'s sociocultural learning theory, complex concepts or higher level of thinking are first learned through social interaction with language acting as a facilitator before these concepts are internalised. It is through our interactions with a "More Knowledgeable Other", such as teachers and peers, that learners understand the information they come across and develop the ability to perform a range of tasks within the Zone of Proximal Development (ZPD). For this process to take place, students need to engage with the learning material and their peers, and the interaction is only feasible when they are allowed to use a language that they are more comfortable with (Rubagumya et al., 2022).

The sociolinguist Halliday (1993) also believes language is crucial in shaping and reflecting the cognitive development of children and adolescents. Moreover, characterisation of diverse MOI practices is important for our increased understanding of challenges faced by stakeholders (i.e. teachers, students, parents, etc.) in MLE. Previous research has established that English Medium Instruction (EMI) is a multifaceted and complex issue, and the choice of MOI policy involves numerous factors, such as aspirations and cultural values, which requires an

exploration from sociolinguistic perspective to provide recommendations for policymakers and shed light on further research (Bowden and Barrett, 2022; Simpson, 2019). In the following section, I provide a brief overview of the two major language ideologies within multilingual education, associated models, and classroom language practices observed in the MLE communities.

2.3.1 Language Ideologies – monoglossia, pluriglossia or transglossia

Gal (2006) states that “language ideologies are cultural conceptions about language, its nature, structure and use, and about the place of communicative behaviour in social life (p.179)”. Similarly, Piller (2015) describes language ideologies as “beliefs, feelings, and conceptions about language that are socially shared and relate to language and society (p.4)”. Sociolinguists often analyse two popular yet contrasting language ideologies that shape prevalent, political, and academic discussions on language, which are “monoglossia” and “pluriglossia” or “transglossia”.

Monoglossia is often linked with colonial history, with a strong focus on language standardisation, and has played an important role in shaping education policies (Bettney, 2022). In contrast, pluriglossia or transglossia emerges from the examination of language practices in specific contexts, including those observed within educational settings. These concepts are crucial to understanding language learning, as monoglossia and pluriglossia or transglossia perspectives guide distinct approaches to the transition in the Language of Learning and Teaching (LOLT) within MLE.

A monoglossic language ideology perceives language as a standalone skill, operating separately from the situational context where it is utilised (Blommaert, 2010; García and Torres-Guevara, 2010). Monoglossia has been a prominent and persistent language ideology in educational settings, advocating for a uniform, standard language model that stresses conformity to the 'correct' or “standard” use of grammar, syntax, and pronunciation typical of native speakers. This ideology prioritises the mastery of language rules and structures in second language learning and is often reflected in language policies and classroom practices. As a result, languages are typically treated as separate and hierarchical entities, where

proficiency in dominant languages is valued more than linguistic diversity (Bowden and Barrett, 2022). Such practices can often lead to the segregation of languages in educational settings and can hinder the natural, fluid linguistic practices of plurilingual individuals through the marginalisation or devaluation of other languages (Bettney, 2022; Milligan, 2022).

Additionally, within a monoglossic language ideology, language and race or identity are linked in a linear way with clear boundaries. For example, an isiXhosa speaking black student might be called a “coconuty nerd” for enjoying English and being close to academia by other black students, while a white South African teacher might be commented as “weird” by students for speaking isiXhosa (Tyler, 2021). In the Global South, language policies promoting monoglossia in education can be traced back to the colonial period, where indigenous languages were initially used for formal education but were eventually replaced by colonial languages at advanced educational levels. The lower status of local languages might be considered as a lack of attractiveness in the context of international economic development (Sheikh, 2023). Although the communities are aware of the benefits that area and regional languages, such as Luganda and Kiswahili, can bring to Ugandan primary school students, English continues to receive unequivocal support (Tembe and Norton, 2008). This preference may be attributed to several factors, including a lack of available teachers and materials in local languages, as well as inadequate training for teachers to effectively use these languages for instruction (Gulere and Lubuulwa, 2021). Additionally, the economic advantages of English in the job market play a significant role. As one parent from the urban community in Tororo District explained: “Children [. . .] should learn a language which helps them in the future. Not put them in brackets of second community (p.47).” In the same vein, some parents in Ethiopia also recommend the using of English as MOI, believing that it is crucial for students’ future competitiveness in the labour market (Areaya and Tefera, 2020). They argued that “instead of having jobless students at the end of the day, it is better to teach them in English (p.118)”.

Similarly, some Ghanaian primary school teachers think they are acting in their students' best interests by using English exclusively, considering it the most effective way for students to develop English proficiency and to succeed in exams and in the

future (Erling et al., 2021). For example, one teacher indicated that: “Well, I don’t use it (the local language) that much because I want to try them... I want to help them to have interest in the English language (p.88),” even though she believes the current language policy is an obstacle to her teaching. Furthermore, research has demonstrated black South Africans with the ability to speak and read English fluently can lead to better earnings in the job market (Casale and Posel, 2011). As a result, some politicians capitalise on parents' preferences and aspirations as a tool in their election campaigns (Simpson, 2019).

In addition, MOI can also be used as the colonisation tool even in the post colonialism period, where British and American accents are perceived as higher standard of English pronunciation (Sayedayn, 2021; Shakib, 2011). The implementation of monolingualism is also evident in the education systems of the Global North, such as the United States. While bilingualism has been accepted in education system in the United States, Spanish is still regarded as a “foreign language and taught as such” when the language is spoken by about 30 million American Latinas/os (García and Torres-Guevara, 2010, p.182).

In comparison to monoglossic ideology, which promotes a single language norm, transglossia ideology refers to a sociolinguistic perspective that recognises and embraces the fluid and dynamic use of a wide range of linguistic resources beyond standardised languages (García, 2009). To put it differently, transglossic perspectives focus on the mixture use of different kinds of languages. This includes spoken and unspoken language, everyday talk, more formal academic language, and various specific languages. It is about how all these different ways of communicating can be used together (Bowden and Barrett, 2022). García (2009) suggests the objective of transglossia is to encourage the marginalised groups to develop “an other tongue” as a way to further develop “an other thinking” (Mignolo, 2012, p.249).

Researchers describe that transglossia in bilingual and multilingual classrooms occurs through practices called translanguaging (Blackledge and Creese, 2010; Creese and Blackledge, 2010; García, 2009). Translanguaging is not a new concept, it was first developed in the 1980s in Bangor, North Wales (Bowden and Barrett,

2022). Cen Williams and colleagues were exploring ways for students to use both Welsh and English within a single class. They coined the term 'trawsieithu' to refer to the process of receiving information in one language and then expressing it in another. The term was later translated into English as 'translanguaging', which helped popularise the concept (Baker and Wright, 2021). García (2009) highlights that "translanguaging is the process by which bilinguals engage in complex discursive practices that release 'an other tongue' and that change the principles which have been established by those in power" (p.162). She further suggests translanguaging includes code switching and translation, but there are also differences. Translanguaging is how bilingual people use two languages in many different ways. It goes beyond simply switching languages or translating words directly. Instead, it is about how bilingual people understand things and express themselves using all parts of their languages. They might not stick to fixed rules about language use or fixed ideas about what words mean. Instead, they mix their languages in creative ways to make new meanings and express their identities.

Along the same lines, Probyn (2015) distinguishes code switching, translation from translanguaging. She describes code switching and translation as reflecting "a temporary (and sometimes illicit) deviation from a monolingual ideal" (p. 221). Translanguaging, on the other hand, acknowledges and embraces the reality of multiple languages, allowing for a more inclusive and adaptable use of language resources in the classroom to facilitate learning. She then refers to the competence of back and forth between registers and languages as translanguaging. As briefly mentioned in earlier section, Halliday (1993) highlights the multimodal nature of classroom discourse, where teachers and students frequently shift between formal, abstract, impersonal registers and everyday, personal, informal ones. It is now well established from a variety of studies within SSA that in multilingual societies and education systems, the moving back and forth between languages used for social interaction and the target language for academic learning is inevitable (Erling et al., 2021; Guzula et al., 2016; Makalela, 2015, 2019). In this research, code mixing, switching and translation will be referred as forms of translanguaging strategies for its common purpose of facilitating learning.

With that being said, within the context of MLE, different language ideologies inform different models to the transition in the Language of Learning and Teaching (LOLT). Monoglossia is linked to a subtractive MLE aiming to replace the student's primary language or the language previously used for instruction (L1) with a second language (L2), which then becomes the new LOLT (Bowden and Barrett, 2022). A distinct feature of subtractive MLE is to increase the exposure of L2, with the assumption longer exposure of Language 2 can lead to learning the language. Considering that monoglossic ideology is associated with the idea that monolingualism is the norm. Using English as MOI can be seen as a form of subtractive MLE. Different from subtractive MLE, underpinned by the transglossic perspectives, additive MLE advocates learners' language needs and progressively incorporates a second language (L2) alongside their main language and other languages used in education (Bowden and Barrett, 2022).

A significant amount of research suggests that the use of subtractive MLE at the upper primary and lower secondary levels may heighten the risk of student dropouts, reduce educational outcomes, reduce possibility of attending secondary school, prevent effective communication in the classroom and lead to epistemic exclusion (Kiramba, 2018; World Bank, 2021). On the contrary, there has been consistent findings that the positive role additive MLE plays in L1, L2, and L2-medium language learning. Laitin, Ramachandran and Walter (2019) present a compelling study on the effects of using a local language, Kom, as the MOI in Cameroon primary schools. They support late-exit programmes, where students are taught in their local language for 6-8 years before switching, as opposed to early-exit programs that only provide instruction in the local language for 1-3 years. The study corroborates the findings of Boateng (2019) and highlights the potential of late-exit programmes to enhance comprehension and learning. Conducted in the Boyo district of north-western Cameroon, the study involved 12 experimental schools where Kom was used for the first three years, compared to 12 control schools using English. The researcher has seen a significant improvements in student performance in both math and English in grades 1 and 3 in the experimental schools; but it should be noted that the positive impact declines in grade 5. The study contributes to the ongoing debate on the long-term effects of early local language instruction, suggesting that the benefits may not sustain if the MOI changes in higher grades. In addition, the

study indicated that local language instruction can lower the dropout rate by approximately 22 percentage points by grade 3 and 14 percentage points by grade 5 in the experimental schools.

This further aligns with Seid (2019) who demonstrates that using L1 based MOI can significantly increase Ethiopian primary school enrolment and ensure that students are in the appropriate grade for their age. A broadly similar point has also recently been made by many scholars through highlighting the cognitive, socio-emotional and cultural benefits of using children's native or home languages in education (Erling et al., 2021; Trudell, 2019; UNESCO, 1953); such as the increased possibility of attending secondary school when students were taught in L1 for over 6 years (Schroeder et al., 2021); enhanced literacy and numeracy rate in Uganda primary schools (Heugh et al., 2014), increased chances of finishing primary schools and over half a year's increase in educational attainment in Ethiopia (Ramachandran, 2017); and higher academic achievement in mathematics and science in South Africa (Heugh et al., 2012). Although using English as MOI in early grade instruction is associated with better performance in English tests, L1 based MOI in the early grades (grade 1-3) leads to improved English proficiency in later grades (grade 4-6) (Taylor and von Fintel, 2016). It further demonstrates the importance of mother tongue-based education in laying a foundation for acquiring additional languages. Taken together, these studies highlight the positive impact of L1 based instruction in the early years of education and support previous research explored in Section 2.

2.3.2 MLE Classroom Language Practices

In section 2.2, I draw on literature from Rubagumya, Jones and Mwansoko (1999), Brock-Utne (2001), using 3 examples of code switching, mixing and translation in geography and science classroom to present the prevalent and popular language practices adopted by teachers in Tanzania. These vivid examples illustrate how teachers try to make meaning cross EMI setting, as one way to facilitate student learning under the subtractive model but did not incorporate much information on other classroom language practices such as how students talk, write, read and classroom communication with teachers, which are equally essential. In this section,

I discuss how monoglossia and subtractive MLE are presented in and out of classrooms in multilingual environment .

Using an ethnographic approach, Kiramba (2018) conducted a case study at a rural primary school in Kenya, involving fourth-grade students, teachers, parents, and the principal. The study investigates the language ideologies influencing communicative practices within a rural classroom and how these ideologies manifest in the communicative experiences of the learners. The decision to include 4th-grade pupils in this study aligns well with the fact that Kenya introduces English as the MOI starting from this grade. Like many former British colonies, such as Tanzania, Kenya kept English language after it became independent (Sheikh, 2023; Victory, 2022). Different from Tanzania which experiences a “late exit” transition, Kenya adopts the “early exit” transition (Bowden and Barrett, 2022). Briefly mentioned above in the literature, the term “early exit “ transition model refers to the MOI switch into an additional, international/European language within 4 years of primary education. In contrast, the MOI switch happened either between primary and secondary school or at some point during secondary education is “late exit” transition (Bowden and Barrett, 2022).

Through six months classroom observation and interviews, Kiramba (2018) identifies a monoglossia ideology presented in the classroom, and students who do not speak English will be excluded from the meaning making process. Analysing through the lens of habitus, legitimate language, and symbolic power (Bourdieu, 1991), Kiramba (2018) find that English in Kenya, has a strong symbolic power in association with success. People with this social capital are considered as smart and intelligent while marginalising those who do not possess this ability. Further echoing what Bowden and Barrett (2022) suggest that “language is never neutral but always works to privilege particular ways of knowing and being whilst marginalising others” (p.20). The participating teacher in Kiramba’s research recognises the value of using the local languages (MT, Kiswahili, and Sheng) to help students understand concepts. However, these languages are considered less important and only gain acceptance when they contribute to better learning in English. Although the “early exit” transition could potentially contradict the British Council’s recommendation, which states that students typically require six to eight years, given favourable conditions, to develop

the Cognitive and Academic Language Proficiency (CALP) necessary to effectively engage in learning across various subjects (Simpson, 2019). Kiramba (2018) does not explicitly mention a subtractive approach in the paper, but it can be perceived through the preference on “early exposure”, “time on task” orientation and teacher’s practice. They believe it would enable students to develop proficiency in the language and foster a more positive attitude toward English. However, educational opportunities are significantly impacted when instruction is conducted in a predominant language, especially those from underprivileged backgrounds (Milligan et al., 2020). The linguistic hierarchy and social inequalities are reinforced through the monoglossia ideology in this rural primary school classroom.

Another important finding in Kiramba’s study is that students and parents prefer this monoglossia ideology, or “English only” based on the future economic and social gains. Reading in Kimeru is deemed as useless by some student and is only useful when “lighting a fire” (Kiramba, 2018, p. 201). Similar example can also be found in Johannesburg secondary schools where English is a superior, a special language compared with Zulu being regarded as home language to most students being positioned as the third choice (Makoe and McKinney, 2014). These findings are in line with British Council Position paper (Simpson, 2019) suggesting diverse features of EMI in various contexts. For instance, in European higher education, EMI driven by the rise in student mobility and institutions seeking a larger share in the expanding market. On the other hand, in basic education within low-income Sub-Saharan African and South Asian countries, EMI is often motivated by political, financial and personal considerations. In some cases, politicians or parties may use EMI as an election pledge to address parental aspirations; or think it is a neutral language enables to promote democracy, equality and global connection, such as the African National Congress in South Africa (Heugh and Stroud, 2019). Others (McKinney, 2007) may link certain use of English with prestige and think EMI is “a passport to a global world (Dearden, 2014, p.3)”.

In addition, English is often used as a default in the multilingual classrooms. Now turning back to the student behaviour, Kiramba (2018) observes during English reading lessons, students respond to teachers’ instructions with rote repetition or remaining silent when the content is difficult to understand. These results align with

the research by Ouane and Glanz (2011) and Manocha and Panda (2015), who observe that the subtractive MLE approach compromises interaction between teachers and students by emphasising strategies like repetitive learning, memorisation, and the copying of written material from the blackboard. It has also been found that students who speak "illegitimate languages," other than English, are ignored by teachers, even when they raise their hands and provide correct answer in a non-English language (Kiramba, 2018).

To encourage the English only environment or punish students who violate, students would receive a humiliating punishment by wearing a dry bone for speaking other language. As a result, some students might choose to be silent to avoid the punishment. This silencing will unavoidably result in excluding students from participating in the creation of knowledge in the classroom and result in epistemic access problem. Recently, Milligan (2022) addresses the critiques from the British Council, which suggests that EMI research tends to be overly descriptive and lacks a theoretical foundation. By integrating critical theories of social and epistemic justice, she identifies three injustices associated with EMI in basic education: distributive injustice, social injustice, and epistemic injustice. These further expand the injustice rural Cameroon children suffer while using English as MOI (Laitin et al., 2019). This view is supported by Erling et al. (2022) who write that using international languages in education significantly restrict students' ability to establish foundational learning skills. Students from the most underdeveloped areas, rural families, and ethnic minorities are the most adversely affected.

Moreover, the dehumanising experience influenced by monoglossia ideology also contradicts with Zinn and Rodgers (2013) who highlight that "Learners need to be recognised, appreciated, acknowledged, and seen. As human beings, all learners and teachers benefit from appreciation of who they are and the capacities they possess. These must be seen in order to be appreciated and acknowledged" (p.87). Similar examples can also be found in secondary schools in Libya (Asker and Martin-Jones, 2013); and different primary schools in Kenya (Ogechi, 2009; Pontefract and Hardman, 2005).

2.3.3 Translanguaging Classroom Practices

A large and growing body of literature has investigated the role translanguaging plays in MLE. It provides a useful and realistic way to humanise the educational experience in classrooms with multiple languages (Childs, 2016). The previous section introduced the origins and development of this concept, this section primarily concentrate on the practical implementation of the approach and the associated debates. In South Africa, Makalela (2015) conducts a quasi-experimental study to evaluate the efficacy of a translanguaging intervention program involving 60 pre-service teachers. Using a paired T-test, the study reveals that utilising translanguaging techniques in the preparation of pre-service teachers for multilingual classrooms offers both cognitive and social benefits, which are not often observed in classrooms where only one language medium is used for interaction.

The study equally split the 60 participants into two groups: a control group taught exclusively in Sepedi (target language) with a strict limit use of other languages, and an experimental group that employed a blend of languages including Sepedi, English, isiZulu, isiXhosa, isiNdebele, and SiSwati. The use of translanguaging techniques within the experimental group not only increased the participants' emotional and social skills but also enhanced their understanding of the content over the course of three months. To further elaborate, three key translanguaging strategies have been identified in Makalela's (2015) study. The first one is contrastive elaboration which involves using multiple languages to expand and deepen understanding of concepts. Second, students are encouraged to brainstorm in various languages during group discussion, take notes in any language, and report back in Sepedi (target language), with allowances for language alternation for less confident students. This strategy shares similarities with language supportive pedagogy (LSP), an approach in multilingual classroom that involves an additional language to help students understand the content when the language policy is unlikely to change (Erling et al., 2021; Erling et al., 2017; Milligan and Tikly, 2016). It also involves teacher using paraphrasing, visuals and exemplifying to help students develop their reading, listening, and speaking skills in L2. This means that “teacher talk involves much more ‘redundancy’ than is normal”. (Clegg, 2022, p.165).

Makalela's (2015) research highlights significance and necessity of providing translanguaging related training for pre-service teachers in multilingual setting. This provides empirical evidence for Nagy's (2018) recommendation to adopt a new mindset in multilingual environment, as teachers are often trained according to monolingual norms that exclude the use of other languages in the classroom. LSP acknowledges that students learn more effectively by beginning with what they know and gradually moving to new concepts. Additionally, using their mother tongue or a familiar language can assist students in learning a second language (Rubagumya et al., 2022). This approach allows student to discuss informally in language they are familiar with (such as Swahili) and report back in target language (English) (Barrett and Bainton, 2016; Juma and Opanga, 2021). The third strategy involved students reading texts in their home languages and retelling the narratives in Sepedi. Furthermore, these student teachers report positive reflections on the programme at the term's end, indicating that translanguaging activities not only improve their sense of multifaceted identity but also foster a favourable experience throughout the language activities.

This is consistent with the data obtained by Makalela (2019) who explores the mechanism of translanguaging in deepening understanding and building a strong sense of awareness in Limpopo Province, South Africa. Audio recordings in the Grade 3 classrooms have revealed that teachers use of translanguaging strategies can promote inclusivity, help students develop a collective identity, and foster cultural competence and highlight the reality of co-existence of multiple languages in classroom. Some key themes emerge, including intentional translanguaging, promoting multilingual expression, and the scaffolding and prediction techniques. For example, the teacher used "Bana ba ka good morning", instead of the common monolingual "Good morning my children", as a class routine when greeting students (Makalela 2019, p. 244-p. 245). Similar experience can also be observed in Netherland where grade 7-8 Polish and Arabic speaking children have the opportunity to engage with teachers in their native languages through greeting and answering questions when teachers ask questions in Frisian (Duarte, 2020). Below is an example of how translanguaging increase student comprehension of content.

Example 1: Deeper comprehension of content (The example below is taken from Makalela 2019, p. 245).

Teacher: What is the Title of the story

Learner 1: Malusi and her diary

Teacher: A secret diary . . . what is a diary, what do we do with a diary? What do we use a diary for?

Learner 2: Re ngwala diphiri.<We write secrets>

Teacher: Write daily activities <learners clap hands three times>

In this classroom setting, a teacher applies prediction strategies to engage students with a story, starting by discussing the story's title. When a student refers to the story as 'Malusi and her diary,' the teacher clarifies that it involves a secret diary and uses this opportunity to explore the meaning and purpose of a diary. Another student, processing the explanation in English, decides to reply in Sepedi, equating a diary to a place 'where secrets are written.' The teacher notes the literal interpretation of 'secrets' and reframes it in English as a record of 'daily activities,' leading to a class acknowledgment through applause. This interaction showcases translanguaging, where the focus is on the functional use of language rather than its structural form. The dialogue moves fluidly between English and Sepedi without the participants being confined by language boundaries.

Makalela's (2019) is important for us to understand what he meant by Ubuntu translanguaging. He believes understand bilingualism/multilingualism should be based on a different set of ideas than the separatist ones that ruled during colonialism. Teachers and students in this study break the boundary between English and African languages which were often seen as separate entities and cannot be mixed in one lesson. On the contrary, teachers and students blend different languages to deepen their understanding. There are some similarities with code mixing, code switching examples I examined in Chapter 2.2. To begin with, these strategies are employed in classroom to provide instructional assistance and ensure that bilingual or multilingual students, who may not be fluent in the MOI, whether English or Sepedi, gain a deeper understanding of the teacher's explanations (García, 2009). To put it in another way, these approaches

acknowledge the fluid nature of languages and can facilitate expression among students who might otherwise remain silent if the teacher were to use only English. However, participating teachers in Makalela's (2019) study actively blend different languages together as opposed to passively reacting to student silence as seen in Rubagumya, Jones and Mwansoko (1999)'s observation. Moreover, Makalela (2019) highlights that translanguaging can also increase epistemic access, considering "language education is about people development" (Makalela, 2017, p 306). This supports the idea that translanguaging helps learners connect their own experiences and knowledge with the structured content of their education (Childs, 2016; Heugh, 2015; Kerfoot and Hyltenstam, 2017; Kiramba, 2018). Taken together, these studies highlight translanguaging as a popular and prevalent practice in multilingual South Africa; and recommend that the principles of Ubuntu translanguaging can transform multilingual practices, improving multilingual students' epistemic access and identity positions.

Duarte (2020) makes a similar point in her study of exploring how translanguaging serves as a pedagogical strategy that recognises and integrates the diverse linguistic backgrounds of migrant Portuguese children in Luxembourg. As a trilingual country (Luxembourgish, French and German); both Portuguese and Luxembourgish are strategically used by pre-school teachers to facilitate learning as a way to narrow the achievement between Luxembourgish and Portuguese-speaking students. While introducing different ingredients in baking, the teacher presents various plates containing ingredients with similar look such as sugar and flour, and starts a question and answer session in Luxembourgish to bring out verbs related to eating, tasting, and cooking. The teacher then asks how to say 'flour' in Portuguese, thus stressing the students' home language. After the Portuguese-speaking children respond, the Portuguese-speaking assistant takes over to ensure comprehension and facilitate the interaction between the children and the content in both languages. This translanguaging approach, with the Luxembourgish teacher focusing on introducing the topic and the Portuguese-speaking assistant ensures the students' understanding and engagement in both languages. However, this model, which often relies on the presence of two teachers (one Portuguese-speaking assistant and one Luxembourgish-speaking teacher) in one classroom could present a significant logistical and financial challenge for low-income countries.

Previous approaches primarily facilitated multilingual students' learning experiences through verbal communication. Researchers (Asher, 1969; Richards and Rodgers, 2001) have also identified the benefits of including physical activities in teaching English as the second language. Kinnaird and Becker (2021) provide an example in exploring how Total Physical Response (TPR) approach through a three-step method ('I do, we do, you do'), can bridge the gap between the local language (Maasai, Kikuyu or Kamba) and the medium of instruction in Kenya (English, Swahili, or a combination of both) (Fahrurrozi, 2017). In the pre-school Kinnaird and Becker (2021) observed, 'I do, we do, you do' are presented as follows:

I do: The teacher gives directions in the local language and then says an English word or phrase (like "jump") while showing the action.

We do: The teacher repeats the English word or phrase while the students follow along, doing the action (jump) together.

You do: The students say the English word or phrase and do the action on their own.

Although it might be argued that the "I do, we do, you do" practice is more applicable or helpful for younger students, such as the pre-school children who participated in this research, the TPR approach can have significant implications for expanding the scope of translanguaging practices. It incorporates physical activities to boost children's confidence by encouraging the use of local languages and enhancing their English vocabulary competence. This approach is also beneficial for teachers who observed the advantages of incorporating local languages into instruction, which may shift their perspectives on its role in education.

The above studies have provided a detailed examination using classroom discourse data to demonstrate how teachers use different translanguaging techniques to deepen student understanding. While Guzula, McKinney and Tyler (2016) use case studies in South Africa to reveal that translanguaging and multimodal practices can enhance their understanding and participation in the learning process by encouraging them to use their full linguistic and semiotic repertoires, body languages and gestures while engaging in activities, echoing Blommaert (2010) and Erling et al., (2021) who write student full repertoires should be encouraged to use as a resource while learning regardless of their proficiency levels.

These practices challenge the monolingual bias prevalent in many educational settings and suggest translanguaging pedagogies could offer new strategies for language and literacy development, enabling learners to become more proficient in both their home language and in English (Erling et al., 2021). More importantly, translanguaging can also challenge anglonormativity. One of the first people to define anglonormativity is McKinney (2017), who writes: “anglonormativity then refers to the expectation that people will be and should be proficient in English, and are deficient, even deviant, if they are not” (p. 80). The study conducted by Guzula, McKinney and Tyler (2016) demonstrate the translanguaging practices used in the Cape Town’s Saturday Literacy Club can disrupt power dynamics between English and isiXhosa, resonating with the arguments of García and Li (2015) who advocate translanguaging in the classroom can shift traditional power dynamics by empowering students to take control of their own language practice. This, in turn, leads to educators giving up some control, altering their conventional authoritative stance.

While creating interesting discussion, translanguaging also inspires debates in bilingual or multilingual education. Jaspers and Madsen (2019) acknowledge the popularity of the term “translanguaging” for challenging the traditional idea about language being strict and separate, but they question the term might add more ambiguity and confusion than clarification for overuse and a lack of precision. Trudell (2019) provides us a number of important concerns related to the use of translanguaging in Nigerian classrooms. She first highlights translanguaging might limit student learning of standard languages which carries a lot of value in examinations. Although unfair, in order to be successful in examinations, students are required to be fluent in English and the content knowledge while “a broad, multi-language repertoire for communication” is not the priority (p.31).

More recent attention has focused on the challenges in putting translanguaging into practice. Kubota (2020) expresses her concerns that the promotion of translanguaging, often benefit researchers more than they help actual teachers and students in the classroom. Aiming to mix different languages and break the barriers, translanguaging does not solve the real-world problem which often operated in a monolingual manner, such as the use of English in most standardised tests and in

academia where most work was expected to be published in English. Similar example can also be found in Chile which promotes bilingualism (English and Spanish), but the curriculum and policy are heavily influenced by the monolingual ideologies and leaves very little room for translanguaging (Arellano and Hatoss, 2023). Additionally, Wlosowicz (2020) points out that while offering significant potential benefits in multilingual education, effectiveness of translanguaging can be limited by factors such as societal norms, traditional teaching methodologies, teacher and student competencies, and the specific linguistic combinations involved. Despite literature expressing concerns related to translanguaging, particularly with respects to its application, it remains a valuable pedagogical tool in multilingual contexts for improving students cognitive and social skills, increasing epistemic access, and engaging marginalised students more fully in the meaning-making process.

This section has engaged with contemporary literature and expands on Section 2.2 by providing a critical analysis of two opposing language ideologies and their associated models in a multilingual context. Extensive worldwide examples support the argument that a monoglossic ideology might lead to epistemic exclusive. This section also offers new insights into how translanguaging, as a valuable pedagogical tool, assists the student meaning-making process by facilitating the movement between informal and formal registers.

2.4 Opportunity to Learn

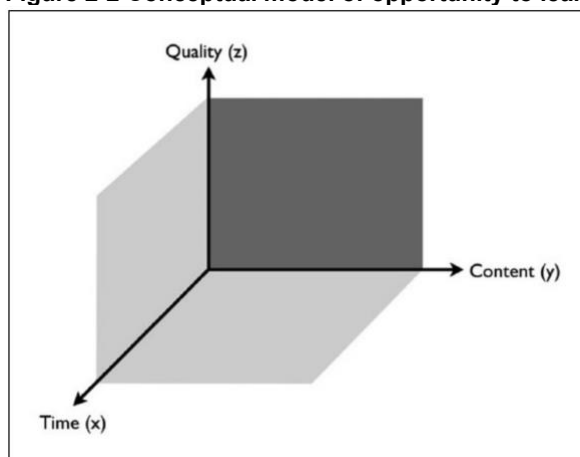
2.4.1 The Development of Opportunity to Learn

Based on my observation during the early phase of my research when I first visited Tanzania, in a typical Tanzanian secondary school classroom, there is less assigned teaching time, content coverage and instruction quality issues are common (Brock-Utne, 2007b). This reflects an Opportunity to Learn (OTL) problem. The is an evolving concept for better understanding and considering the intricacy of the schooling process (Elliott and Bartlett, 2016). OTL was introduced as part of the first International Mathematics Survey in the early 1960s in the United States. Carroll (1963) developed the first operational definition of OTL by focusing on the variable of time allocated to teaching in a school schedule. He suggested that OTL is “the amount of time allowed for learning, for example, by a school schedule or program” (Carroll, 1989, p.26).

Researchers (Borg, 1980; Brophy and Good, 1984; Elliott et al., 2011; Porter, 2002; Rowan and Correnti, 2009) considering OTL have focused on three key dimensions of the enacted curriculum: time, content and quality of instruction. To ensure students have the opportunity to learn the required curriculum, teachers need to dedicate teaching time to cover the specified knowledge and skills (Elliott and Bartlett, 2016). Time is typically divided into allocated, engaged and actively responding time. Additionally, teachers must also cover the content implicated in the academic standards to provide students with opportunities to learn the content most assessments actually measure. Content generally addresses the overlap between the enacted and assessed curriculum (Comber and Keesee, 1973; Husén, 1967). However, researchers argued that the focus on content coverage does not necessarily mean content learned. A learner centred approach should be prioritised over the traditional approach of covering all material in the syllabus as it can detract from meaningful student engagement with content (Petersen et al., 2020). Conversely, others (see Barr, 1983; Oketch et al., 2012) has identified a positive relationship between content coverage and student achievement. Moreover, as Kurz, (2011b) suggested that “only knowing how much time is spent on instruction and what content of the intended curriculum is being covered fails to indicate “how” this

time and content were enacted, which requires the integration of a third instructional dimension into the concept of OTL: quality (p.46)". Quality of instruction is often focused on instructional resources, such as access to books (Porter, 2002; Wang, 1998) instructional practices, such as explicit or direct instruction, providing feedback and positive reinforcement, which received consistent empirical support (Brophy and Good, 1984; Gersten et al., 2009; Walberg, 1986). Kurz and Elliott (2011) advance the model by defining OTL as the degree to which a teacher dedicates instructional time and content coverage to the intended curriculum objectives, emphasising high order cognitive process, evidence-based instructional practices and alternative grouping formats (Figure 2-2).

Figure 2-2 Conceptual model of opportunity to learn (OTL).



Source:(Kurz, 2011b)

The OTL concept aims to create measurement methods for educational stakeholders to explain differences in student performance in tests within and between countries (Folden, 2002; Foshay et al., 1962; Husén, 1967). Being a key framework within international comparative studies, OTL is relevant for policy makers to identify where interventions are required for promote education equity (Perry et al., 2024; Schmidt et al., 2018). Gillies and Quijada (2008) argue that “it is unfair to hold students responsible for meeting high academic standards unless they have been assured of an opportunity to learn” (p.3). OTL has been defined as content coverage and the quality of the subject curriculum in developed countries (Carnoy et al., 2014). Drawing on results from the PISA 2012, for the first time Schmidt et al., (2015) included several OTL indicators in their survey. The results demonstrate a significant relationship between OTL and student performance in both paper-based assessments and optional computer-based tests on country, school and student

level by using hierarchical analysis. Exposure to the pure mathematics task was strongly associated with better mathematical performance.

2.4.2 The Application and Operation of Opportunity to Learn

The idea that students have little OTL has gradually become a popular explanation for poor education performance in developing countries. However, there is limited evidence to support this claim. In developing countries, OTL is defined more broadly as the amount of time that students are exposed to the curriculum in a given academic year (Reeves and Drew, 2013). Unlike the practice of OTL in developed countries, OTL in developing countries focuses on time metrics for good reason. In Tanzanian context, Galabawa (2000) summarises the most common practice used in classrooms, stating: “There seems to be time constraints in teaching and learning; little time is devoted to students’ work the medium of instruction is difficult and hence limits oral and written communication” (cited from Vuzo, 2010, p.2).

The learning outcome is a function between time efforts, and learning is simply impossible when there is no time put into the studying process (Gillies and Quijada, 2008). Benavot and Amadio (2005) suggest that investment in teachers, teaching material, curriculum and classrooms would be meaningless if they are not applied for a reasonable time. They also argued that when the engaged time is maximised, students are more likely to get better academic results. Teacher absenteeism causes a considerable amount of time loss and then leads to student absenteeism (Béteille, 2009). When teachers are present at the school, they also may not actively engage in teaching. Stallings (1980) further suggests that although teachers may be teaching, this may not be in a meaningful way required by the curriculum. Gillies and Quijada (2008) argue that these elements might be regarded as factors affecting student opportunity to learn OTL in a Colombian context.

To explore the relationship between time on a task (the length of exposure to content) and student scores; Oketch et al. (2012) conduct research in 72 public primary schools in Kenya. They conclude that there is a positive correlation between time on a task and student scores using a two-level hierarchical model. This research laid the foundation for how to operationalise OTL into analysable data in a

Kenyan context. Later, Carnoy et al. (2015) adopt an innovative approach to explore OTL in three African countries (Botswana, Kenya and South Africa); in this study, OTL is defined as the curriculum coverage (student exposure to mathematical concepts). They found that school resources played a considerable role in student learning. In all three countries (Kenya, Botswana and South Africa), teachers with more mathematics content knowledge were likely to provide more mathematical concept coverage to their students. However, the relationship between teaching experience and content coverage varied among the three countries (in low-performance Kenyan schools, "better" teaching was related to less teaching experience). An increase in teacher skills and quality of instruction should contribute to higher student achievement. As well as providing a workable framework for OTL in developing countries, this research employed multilevel modelling to divide differences in student achievement into different levels (teacher, classroom condition and classroom process). Building on these two studies is relevant to studying MOI and OTL in Tanzania for two reasons. First, the two studies provide an operational OTL framework in developing countries. Second, these studies make use of multilevel modelling, with differences in student achievements divided into different levels. Even though this research has not incorporated the multilevel modelling, the recognition of the nested data structure has allowed me to narrow down my focus to the pupil level.

There is a large body of literature that emphasises the importance of instructional time and how it can affect student learning performance (Bloom, 1976; Fredrick and Walberg, 1980). Abadzi (2009) argues that poor student performance could be explained by other unobservable factors if we do not pay enough attention to instructional time. She believed that time is a "mediator variable that has escaped scrutiny and measurement thus far" (p.289). Moreover, researchers have identified a range of factors that may compromise instructional time including school closures, the absence of teachers or leaving school early than scheduled time (Abadzi, 2009; Gillies and Quijada, 2008). Similarly, Pontefract and Hardman (2005) raise another concern when they conducted research in Kenyan primary schools. Even with teachers showing up in the classroom, said teachers may not dedicate enough time to teaching and instead focus on other activities. Thus, instructional time was wasted when students are doing non-educational activities other than studying.

Starting in 2017, UNICEF Office of Research has launched Time To Teach (TTT) project aiming to understand how frequently teachers are not at school, the reasons for why teachers are not in school and if the absence varied by school type and any potential recommendations (Karamperidou et al., 2020). One of the rationales for this project is that researchers believe teachers' absence from school is one of the main obstacles leading to learning crisis in African countries. More than 3,000 teachers from 21 African countries were included in the UNICEF report and researchers extended their research beyond the school campuses. They are also curious about factors outside school affect teacher attendance (Játiva et al., 2022; Karamperidou et al., 2020). They conclude that, on average 15.5% to 17.8% of teachers are not in school or are not engaged in teaching while in schools. They also found that rural areas suffer more teacher absenteeism than urban and peri-urban areas, and teachers are more likely to be absent from school or not engaged in actual teaching in public schools than in private schools.

In Tanzania, evidence of teacher absenteeism from school and classroom and late arrival can be found in the 2011-2015 Uwezo Annual Learning Assessment; the 2014 World Bank's Service Delivery Indicators (SDI) survey; the 2011 The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) report and previously mentioned TTT project. In the TTT Tanzanian report, Han and Peirol (2021) use nationwide qualitative data, classroom observation and the Likert scale⁵ surveys with 259 primary school teachers and found out that over 10% teachers are absent from school at least once in a week. The percentage for more than once in a week is 8%. There is reduced teaching time because of heavy workloads due to teacher shortages, unequitable allocation policies, low morale/ stress because of a low salary, and poor quality of teacher training.

However, the report receives criticism from Sinyolo (2021), the Director of Education International's African Regional Office in Accra, Ghana who claims that the UNICEF definition of teacher absenteeism is flawed. As it categorises teacher sickness or teacher on other school-related tasks as absenteeism. This leads to the conclusion

⁵ Never; A few times (less than three); Less than once a week; More than once a week

that the absenteeism rate can be as high as 45% in SSA countries. He also pointed out the narrow focus of learning poverty which only covered reading and writing. And asked, “how many children or parents would welcome that kind of negative labelling; it impales the dignity of the African child (Sinyolo, 2021, para 5)”. This reflects the one of the limitations of OTL: the challenge of accurately measuring OTL variables (Banicky, 2000; Schmidt and Maier, 2009).

After reviewing what factors may account for teacher attendance, I shift the focus on to the benefits of having sufficient instructional time for students. Sufficient instructional time allows students to prepare for tests and catch up with necessary learning material. The importance of this for African American students was illustrated in the lawsuit between the National Association for the Advancement of Coloured People (NAACP) and the state of Florida (Debra P. v. Turlington, 1979, cited from Wang, 1998).

Later consistent research has confirmed the positive effects of sufficient instructional time on student performance. However, it may have a ceiling effect beyond which the benefits diminish or have no impact (Andersen et al., 2016; Cattaneo et al., 2017). Other researchers have also found differences in how different groups react to additional instructional time. Such as differences which I consider controversial, between boys and girls - and between students of different social economic status (SES) (Duckworth and Seligman, 2006; Raver, 2004). Even if there is additional time, it depends on how teachers use this time (Andersen et al., 2016). Furthermore, a study in in low-performance Italian lower secondary schools found that additional time may be positively correlated with some subjects and not others. For example, students with more time did better in mathematics but not languages (Italian) (Battistin and Meroni, 2016)

Now moving on the third dimension: quality of instruction. There is a large volume of published studies has definted the scope of quality of instruction, making it the most varied research component associated with the instructional dimension of OTL. This dimension can also be linked to multiple models of school learning. In my research, operating the quality of instruction primarily focuses on instructional practices and instructional resources. To explore instructional practices in Tanzanian secondary

classrooms, I adopt indicators from a number of researchers and focus on the following factors: positive reinforcement, direct/explicit instruction, instructional grouping formats, questioning students, classroom climate and providing corrective feedback (Brophy and Good, 1984; Gersten et al., 2009; Herman et al., 2000; Kurz, 2011b; Lysakowski and Walberg, 1981; Walberg, 1986). These factors are selected for their close relevance to my research and for showing a moderate to high effect size from empirical literature.

Extensive research has consistently highlighted the contribution of some specific factors to quality of instruction, such as questioning students, (positive) reinforcement and corrective feedback (Brophy and Good, 1984; Walberg, 1986). Walberg (1986) conducts an extensive review of 95 studies and identified the mean of effect size for reinforcement in 39 studies is 1.17 and the mean effect size for corrective feedback in 54 studies is .97, indicating a large positive impact of these strategies on quality of instruction, with reinforcement showing particularly strong effectiveness.

Along the same line, Kurz's (2011a) doctoral study focuses on creating a tool to measure OTL for students with disabilities. Drawing on data from 38 teachers across 17 middle schools in the US, he reports that direct instruction, guided feedback, and instructional grouping formats (individual, small groups and whole class instruction) have shown moderate to strong effect size, ranging from .43 to 1.17, depending on the instructional approach and the demographic of students (Kurz, 2011a). These findings are consistent with those of Elbaum et al., (2000), who identify alternative instructional formats, such as pairing students, small group sessions, and mixed grouping methods, can produce an average effect size of 0.43 compared to whole class instruction. Additionally, the results also align with Gersten et al., (2009), who report a statistically significant mean effect size of 1.22 for explicit instruction.

A considerable amount of literature has been published on the definition of feedback, direct or explicit instruction, reinforcement (Paterson et al., 2020; Zimmerman et al., 2022). In my research, I incorporate Kurz (2011a)'s definition, because it is highly relevant to my research with OTL being put in a central place. His definition is also particularly useful to capture the dynamic of classrooms interactions and can provide

clear guidance for my data collection and analysis. Specifically, in Kurz's research, direct instruction is characterised by the teacher presenting an issue, discussing or demonstrating a solution strategy, and actively involving students in applying this strategy in similar contexts. Feedback is described as the teacher evaluating students' work quality, identifying missing components, and noting areas of strength. Positive reinforcement involves the teacher rewarding students based on the expectations previously set for their effort and overall work performance.

There is a large volume of published studies describing the role of classroom climate with more than half a century of research conducted both in the west and African countries (Dreesman, 1982; Nzowa and Ngussa, 2019; Walberg and Anderson, 1968). As a multifaceted concept involving relationships between students and teachers, the level of cooperation, understanding, and competition among students, classroom climate plays a crucial role in shaping the educational experience. For example, when students with lower intelligence are in a positive classroom environment, they are more likely to perform better because the supportive atmosphere helps them think and learn more effectively. This supportive environment can make up for some of their difficulties, allowing them to achieve higher standards (Dreesman, 1982). Particularly, a positive classroom climate can foster a sense of belonging, trust among students and then motivate students to participation in classroom by contributing ideas, taking risks and asking questions (Young, 2014). On the contrary, in a negative classroom climate, the supportive factors are missing, student intelligence plays a bigger role in their performance. As a result, students with lower intelligence struggle more and do not perform as well because the environment fail to help them compensate for their challenges. Moreover, a recent study by Adamson (2022) identifies that using English as MOI can contribute to anxiety among Tanzanian students. The fear of being laughed at for making mistakes led to a negative classroom atmosphere, which also discouraged students from participating.

2.4.3 Instructional Resources related to OTL

In additional to instructional practice in this research when I assess quality of instruction, I take instructional resources into consideration such as school

conditions, the access to textbooks, supplementary materials and calculators (Herman et al., 2000; Porter, 2002; Wang, 1998). I also consider the interconnectedness of school conditions, resources, and instructional quality in accordance with the definition adopted by Winfield and Woodard (1994) which highlighted these factors as broad and frequently cited factors related to OTL in previous literature (see table 2-4 in page 78). For example, students should be able to have a safe and orderly learning environment with adequate physical space and access to textbooks and other support material. Teachers should have certain qualification and opportunities to improve their pedagogical skills through professional development, such as emphasis in-service training for teachers. For example, over 97% of 610 primary teachers in three districts from Uganda agree or strongly agree that in-service teacher training can help them to acquire new skills and knowledge, and over 90 % believe the training can provide quality education to learners (Nzarirwehi and Atuhumuze, 2019). Other benefits include improved teacher commitment increased scope of what constitutes a good teacher (Jahangir et al., 2012) and increased inclusion to children with special needs (Seçer, 2010).

Ngware et al. (2014) highlight that in-service teacher training can rejuvenate their pedagogical knowledge. By providing opportunities for teachers with different levels of experience, in-service training can create peer discussions from which newly started and experienced teachers can learn from each other and share best practices, helping to bridge the gap between theory and practice. Additionally, in-service teacher training is useful for enhancing learner-centred teaching styles and improving educational outcomes, particularly in low-performing schools.

Moreover, teachers should be committed to teaching and be confident to use appropriate and varied teaching strategies such as the learner-centred approach (LCP) instead of the passive “talk-and-chalk” style (Vuzo, 2010). A recent mixed methods study conducted in the Nyamagana District of Tanzania concluded that teachers may find it difficult to implement LCP due to inadequate knowledge and skills (Mgyabuso and Mkulu, 2022). The research also highlights that LCP has been highly endorsed by the Tanzanian government for its long-lasting effect on the development of students' cognitive skills such as student critical thinking, problem-solving skills, independent learning skills and innovation. This supports the results of

Vuzo's (2010) study, which shows that collaborative group work among peers can enhance both students' confidence and competence.

It is worth noting that there has always been a contrast in viewpoints regarding learner-centred pedagogy. For instance, Tabulawa (2003) uses curriculum reforms from Botswana, Namibia and South Africa to argue that the promotion of a learner-centred approach by international aid agencies, such as the United States Agency for International Development (USAID), Junior Secondary Education Improvement Project (JSEIP) and Department for International Development (DfID) in the UK (the department merged with the Foreign and Commonwealth Office to create Foreign, Commonwealth and Development Office in 2020 (FCDO)), was driven by political and ideological perspectives rather than cognitive or educational. He argues that due to the importance of education in the African democratisation project, this pedagogy represented "a process of Westernisation disguised as quality and effective teaching" (p.7).

Moving on now to consider schools conditions. Schools should not be isolated, and they should work closely with communities to address student health and social service needs. Parents should be encouraged to get involved as well. The importance of a conducive learning environment is well studied. It is also well acknowledged that home and school resources, class size, student teacher ratio, textbooks availability, teacher abilities and basic sanitation facilities availability are key factors that affect learning (Blatchford et al., 2007; Filges et al., 2018; Good and Power, 1976; Ngware et al., 2014, 2013; UNESCO Institute for Statistics, 2016). Partnered with UNICEF, the Southeast Asia Primary Learning Metrics (SEA-PLM 2019) report highlights that students could have better performance in a bigger school with better resources than in a smaller school with fewer resources. However, having resources is not enough; the equity allocation of these resources is the key. Additionally, higher engagement from teachers and parents can contribute to higher reading, mathematics and writing skills. In addition, Elezović et al., (2022), using the 2019 Trends in International Mathematics and Science Study (TIMSS), show that there are more important factors than school environment when it comes to explaining student academic performance differences. Such as whether students

have access to home learning resources, how supportive their parents are and what the attitudes of teachers and students towards teaching and learning.

Table 2-4 Factors Associated with OTL that are most frequently cited in the literature.

Curriculum	Time	Instructional Quality	Resources	School Conditions
		Combine related factors form “ <i>Instructional resources</i> ” to explain differences among schools		
Aligned with content standards	For lesson planning and collaboration	Teaching experience	Adequate physical space	Instructional leadership on the part of administration
Integrated across content areas	For uninterrupted periods of instruction	Teacher Certification	Access to textbooks, technology and support materials	Policies promoting collegiality of school staff
Relevant to students and reflecting real life problems		Teacher turnover	School and community partnerships designed to address student health and social service needs	High expectations for student learning
Aligned with assessments for monitoring		Teacher attendance		Student attendance incentives
		Teacher commitment	Parental Involvement	
			Quality Professional Development	Safe and orderly learning environment
			Equitable finance formulas within and between schools/districts	Teacher involvement in decision making

Source: Winfield and Woodard, 1994, cited from Banicky, 2000, p.3.

While adequate physical space, teaching experience, certification, turnover, attendance, and commitment are critical factors, they predominantly address teacher-related and school-related characteristics rather than direct instructional practices and classroom dynamics. Since the research question 1 aims to understand the impact of the switch in the medium of instruction on students' opportunity to learn, particularly from the perspective of quality of instruction (the 3rd element), the primary focus will be on instructional practices. Specifically, I want to explore whether switching of the medium of instruction impacts the classroom

climate, whether it affects teachers' ability to question students and ability to provide feedback, etc. Instructional resources in my research are conceptualised as a combination of instructional quality, school conditions and resources listed in Table 2-4 above. These factors may also help explain difference observed among schools. Put it in another way, these factors will potentially answer the second part of research question 2: How do the effects of MOI on OTL vary by school types (community, private and public schools), and what may account for this variation? For example, I will explore whether teachers' experience and the availability of in-service teaching training contribute to a relaxed classroom climate and enhance teachers' ability to provide corrective feedback or question students. In this thesis, analysis and finding sections of the third dimension of OTL (quality of instruction) are structured and organised around some of these themes.

Having discussed the importance of school conditions as instructional resources when I explore quality of instruction, the next section moves on review the importance of textbooks and curriculum review. According to a 1995 UNESCO report, textbooks, curriculum design and review have been acknowledged as a priority of providing a quality education for all after realising their essential roles in fostering a culture of peace. The power of textbook should never be ignored as it could transmit knowledge, reflect basic concepts, and share political norms and social traditions of any society (Braslavsky and Halil, 2006). In the report, *getting Textbooks to Every Child in Sub-Saharan Africa*, Fredriksen et al. (2015) raise a concern that even with international support from the World Bank Group from 1980s, African countries still face textbooks shortages that prevent learning. The supply cannot keep up with the demand given the growing student population. It means that teachers do not have the necessary teaching support, and students have no learning material to revise from and do not develop a good reading habit.

The first SSA Education Policy paper produced by the World Bank in 1988 demonstrated the importance of providing a minimum amount of teaching and learning material (TLM) to students to improve instructional quality (The World Bank, 1988). Subsequent policy papers have reiterated the importance of this provision, stressing its urgency due to its potential to maximize the use of both teacher and student time. It is suggested that the cost and financial barrier is widely seen across

countries. According to Read (2015) and World Bank (2008), the average textbooks price for a Tanzanian student in Grade 9 is \$4.25. This is one of the lowest among 11 SSA countries⁶ included in the sample. Even though the average price in Tanzania is slightly higher than Kenya (\$3.8), Tanzanian Grade 9 students only need 6 books to have the set instead of 15 like their counterparts in Kenya. Therefore, Tanzania has the lowest cost \$25.30. However, it is still unaffordable for some students.

Apart from financial cost, several obstacles have been identified by the World Bank for leading to the shortage of textbooks in SSA countries. The first is the large differences among countries, such as the variance of the publishing and printing capability, country size and road network (this affects the effectiveness of textbook distribution). Other factors include inadequate textbook storage and distribution system, poor textbook planning, management and monitoring also explain the textbook scarcity (Fredriksen et al., 2015). During the World Bank's visit to Tanzanian secondary schools in November 2009 and January to February 2010, they found that the textbook availability is very low in both urban and rural areas. When teachers were asked by the researchers what the most needed teaching resources are, surprisingly, textbook was not mentioned in the list (De Guzmán, 2010). In terms of textbook financing, the respective government is responsible for providing textbooks for countries such as Ghana, Tanzania, Zambia, Eritrea and Ethiopia. However, each government is struggling to provide enough copies. Consequentially, there is a mixed financial model where parents are encouraged to fill in the gap (The World Bank, 2008)

A major shift occurred in Tanzanian textbook policy in 2009 when President Jakaya Kikwete announces that the multiple textbook policy will be replaced by a single copy textbook nationwide (Languille, 2016). Under the previous policy, schools were permitted to select any approved textbook from a list, but the new policy required all schools throughout the country to use a single, official textbook for each grade and subject. Kira and Bukagile (2013) document the complaints from

⁶ Botswana, Cameroon, Côte d'Ivoire, Ghana, Kenya, Lesotho, Malawi, Nigeria, Tanzania, Togo, Uganda.

different stakeholders regarding the poor quality of textbooks. The textbook policy goes beyond the education sector and reveals the power dynamic between Tanzanian and western donors. As textbooks are not just a profitable business but a powerful foreign policy instrument. In 2014, Chama Cha Mapinduzi (CCM), the governing political party in Tanzania since independence, decides to abandon the market based textbook provision system they established in the early 1990s under the donor's influence and gave the power back to state.

Barrett (2014) explores the issue of textbook availability in Tanzania. Among the 21 schools that were studied, only three had enough biology textbooks for the entire class, while nine had enough English textbooks and seven had enough mathematics textbooks. Lindi⁷ had the most concerning situation, with only one out of seven schools having enough mathematics textbooks, and none having enough English or biology textbooks. In addition, out of the 66 students who were surveyed, only one had their own textbook. According to the World Bank (2008), Tanzanian schools receiving capitation grants since 2005 (\$8 per student per year) on textbooks and other reading material. Massive variations are still prevalent across the country despite the grant has alleviated the pressure of secondary textbooks supply. How allocated money was spent varies by school, some of them focus on core textbooks, some on library building, and some on textbook for examination forms. It is worth noting that there are suspicions that textbook funding is not fully used for the provision of textbooks but on other school related cost (The World Bank, 2008).

Even when students have textbooks, Barrett (2014) finds that the content is not always suitable for them to read. For example, there is no English to Swahili glossaries which all 210 students they interviewed appreciate. Books published by local and international publishers are difficult to read. Form I Biology textbooks have higher language requirements than Form 1 English textbooks and are not in line with the Tanzanian English curriculum. In fact, they are harder to comprehend than high school biology books written for England and other places where most students speak English fluently.

⁷ A coastal town and the regional capital of Lindi Region situated in a southern part of Tanzanian.

The development of fluency in informal English is the primary aim of English textbooks. Students are not provided with any other reading material in the curriculum that would prepare them to utilise English for academic purposes. The syllabus depicts the use of interactive learning and teaching, however, there is limited activities that promote and support interactive learning. The latter is more often seen in books published by local Tanzanian publishers (Barrett, 2014) The changeable syllabus may contribute to the textbook incoherence. For example, the Tanzanian Institute of Education (TIE) changed the syllabus 4 times in 1997, 2005, 2007, 2009. Similar issues such as context inconsistency is also found by many researchers. Kira and Bukagile (2013) ask 155 different stakeholders' attitude of Tanzania textbook liberation policy. They found that 80% of teachers and 83% of publishers thinks although that some textbooks are granted with Educational Materials Evaluation Committee (EMAC) certificates, the quality is below what they established in the EMAC circular No.2 of 1998 and No.7, MOC of 2005.

After reviewing social science textbooks used in primary schools, Haulle and Kabelege (2021) find that in these books prepared by different publishers, such as, Tanzania Institute of Education (TIE) or private publishers there are differences in content, pedagogy, design and physical characteristics. Given this, these differences may lead to different learning process and achievement for students. For example, in the Swahili social science textbooks prepared by the TIE (2018) the largest planet in the solar system is Uranus (Zohari)(TIE, 2018). But the other English textbooks which are written by private authors, the answer is Venus (Zabaki)(Saleh, 2018). The factual errors and inconsistencies indicate those textbooks may not be prepared or reviewed thoroughly by the experts (Haulle and Kabelege, 2021). The findings add to the research conducted by Kira and Bukagile (2013), who argue that there are confusions and inconsistency in different textbooks. With students indicating that their poor academic performance is related to the poor language and inaccuracies used in many textbooks. Additionally, the continuous inclusion of new material into the curriculum can cause an overload for teachers, who may struggle to cover all the content within the syllabus (Vuzo, 2010).

“Textbooks are not only mediums of knowledge. Like the national curricula that they embody, textbooks participate in the circulation of specific values” (Apple, 1991; cite

from Languille, 2016, p.73). The benefits of having well written textbooks are well documented in the literature. It can contribute to effective teaching and learning by encouraging student to think reflectively and develop their problem-solving skills. As well as help teachers save time by providing solutions (Abdelraheem and Al-Rabane, 2005; Haulle and Kabelege, 2021; Sumra and Rajani, 2006). Well written textbooks can help teachers planning lessons in terms of teaching methods and the use of the teaching aid. It can also facilitate teachers to decide the depth of the content and therefore decide what to present to students (HakiElimu, 2007; Mukyanuzi and Paul, 2005).

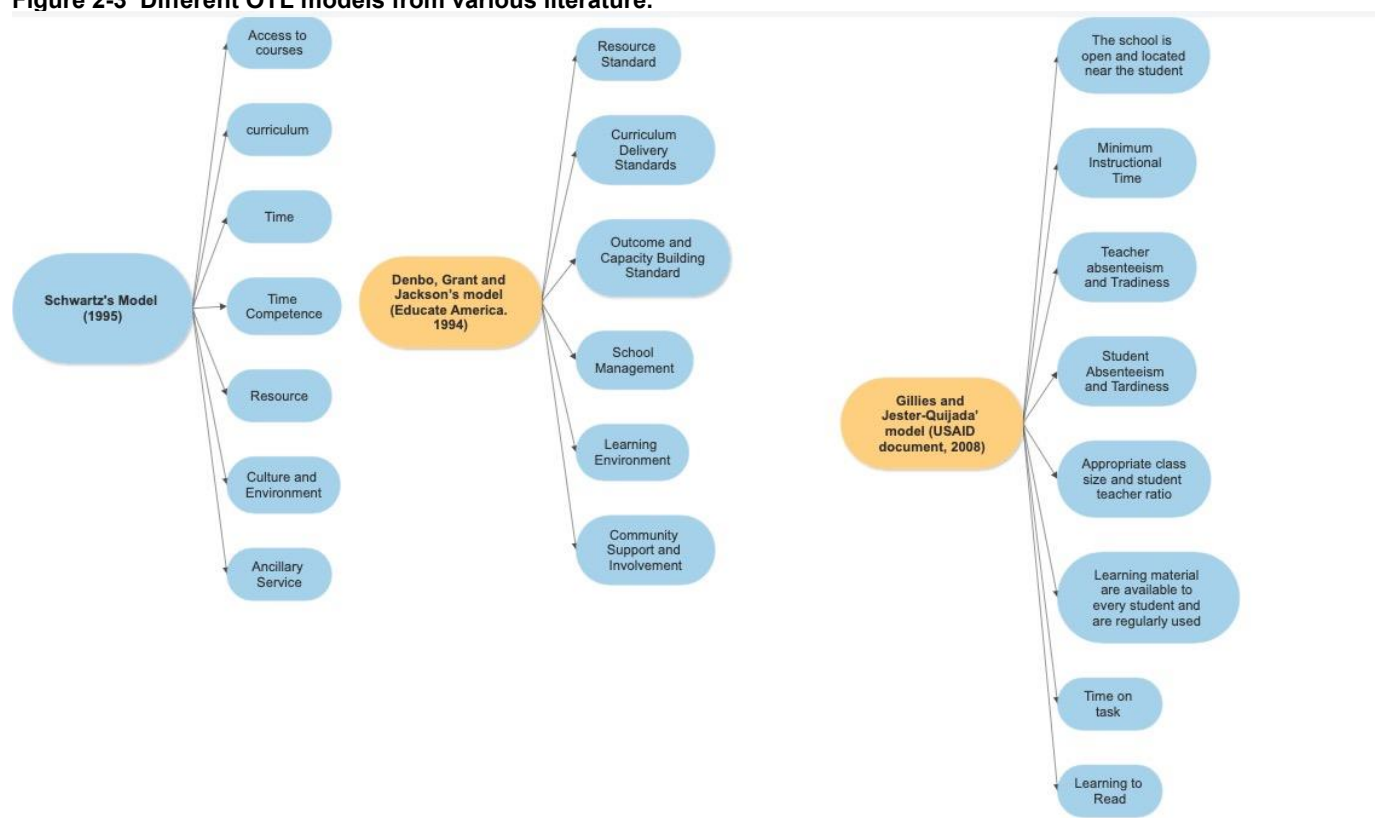
Aware of the importance of the textbooks, in 2016 the Tanzanian government determined to address the challenge, as the pupil to textbook ratio is 3 to 1 as observed by UNICEF. However, textbooks and other reading material are rarely seen in the fieldwork in schools and homes, which may lead to lower literacy and numeracy in adulthood. Evans et al. (2010) argue that children's education level is not only affected by the level of parents' education, but also but the availability of books at home. Using multilevel linear and probit models analysing over 70,000 cases from 27 countries, they concluded that children growing up with no books at home received on average 3 years of school less compared with children who grow up in households with numerous books. Regardless of parents' degree, employment, social level. Inspired by previous research, I will include home resources (the availability of books) to reveal how Tanzanian Textbook Strategy works in real life and in what way it affects student learning whether positively and negatively.

In the same vein, two reports from HakiElimu (2011, 2007) has demonstrated the availability of textbooks can help students to self-study, review what they have learned in class and therefore to cultivate their independent learning skills and. Furthermore, these reports further articulated textbooks are particularly essential for poorer countries, as they are more likely to have limited teaching and learning facilities and resources of lower quality. Textbooks do not just help students get access to education; textbooks can help standardising knowledge in disadvantaged areas. Previous studies have clearly demonstrated the positive correlation between the textbook availability with student performance and textbook quality and education achievements (Haulle and Kabelege, 2021; Kira and Bukagile, 2013; Languille,

2016; Moulton, 1997; Ngorosho, 2011; Read, 2015). Compared with investments in teachers, Easterly (2001) concluded that marginal investments in textbooks can have a 10 times higher return on average.

Taken together, while Carnoy et al., (2015); Ngware et al., (2014) and Oketch et al., (2012)'s studies provide a workable framework for OTL in my research, there are several alternative models available in the literature. Figure 2.3 below listed the three models reviewed by Ramos and Gaviria, (2011). These include Schwartz (1995)'s model, Denbo et al. (1994)'s model (Educate America 1994), and Gillies and Jester Quijada (2008).

Figure 2-3 Different OTL models from various literature.



Source: the models were adapted from Ramos and Gaviria (2011) and summarised by the researcher.

These models have provided operational guidance for measuring OTL factors. However, they are less suitable methods to explore the MOI issue in an African country, such as in the model in Educate America 1994 (Denbo et al., 1994). Whilst this considers curriculum, instruction and assessment alignment among different level of authorities (local district and state). This OTL framework does not include

time as an indicator which has been proven to be useful in the application of OTL in developing countries (Benavot et al., 2004; Gillies and Quijada, 2008). Time is an important factor when exploring the impact of using English as the MOI among student and teacher. Particularly in contexts such as SSA or Tanzania where teacher absenteeism may be an important barrier to consider.

Schwartz's (1995) model was proposed with the original goal of ascertaining if discrepancies in student performance across countries could be attributed to differences in learning experiences. Rather than inherent differences in students' capacity to master the subject matter. The concept is gradually transformed as a way to measure the quality of a school system and the utility of its educational resources. Both Schwartz (1995) and Gillies and Quijada (2008) have mentioned time in their models and the latter have included "minimum instructional time" and "time on task", the alignment between instruction and assessment was taken into consideration but was not treated as one of the fundamental factors. They have categorised the 8 elements into 2 groups. The first 6 elements are grouped as "inputs and managements". The last 2 are grouped as "pedagogy". They argued that "a minimum level for each element can create a basic opportunity to learn" (Ramos and Gaviria, 2011, p.248). They admitted that the 8 elements may not reflect what is urgent and the most suitable for developing countries. Therefore, although these 3 OTL models have their contributions and merits, they may not capture the key indicators reflected in MOI problem in Tanzanian secondary schools.

2.5 The Either or Debate: The Tanzanian Context

The debate on which language to use as the MOI has dominated the Tanzanian academic field for over four decades. As a multilingual country of over 120 languages within its border, independent Tanzania inherited colonial education pattern in 1961, using Swahili and English as co-official languages (Tibategeza and du Plessis, 2012; Yogi, 2017). For a newly founded country, Swahili was made the only language of instruction when socialism was introduced in 1967. Contradictions appear regarding the MOI from the 1980s when the country decided to embrace capitalism again. Tanzania has moved from a state-controlled economy to a free market economy, accompanied by the liberation and privatisation of the major

means of production. Privatisation was extended to education in the 1990s, when the private primary school was legalised by the passing the Education Amendment Act in 1995. A common educational dilemma in multilingual African countries is what to choose as the language of instruction. The Tanzania government insists on using English as the only medium of instruction in secondary and post-secondary education for its “tremendous power and prestige in the global market” (Tibategeza and du Plessis, 2012, p.1). Even though this policy has been widely challenged by the academic researchers and education activists.

Throughout the 1970s and 1980s, there was mounting concern, both public and professionally, over the apparent fall in the standard of English among secondary and post-secondary school students in Tanzania. The problem appears to be related to the fact that Swahili was the national language and the MOI during primary school, while English became the MOI during secondary school and above (Roy-Campbell and Qorro, 1997). Failure to achieve proper competence in English in order to use it effectively as a medium of education appeared to lead to poor performance in school, since students demonstrated limited understanding of what was presented to them in their secondary schools.

Qorro (2013) argues that the education system in Tanzania is designed to serve the minority elite class, former colonial powers instead of the majority Tanzanian population. In the same vein, Brock-Utne and Holmarsdottir (2004) describe the language policy in Tanzania as “confusing, contradictory and ambiguous” (p.81). Criper and Dodd (1984) state that the education standard in Tanzania is declining, teacher and student English proficiency is low, and English has stopped being an effective MOI. Nearly 30% of all students in their sample were still at picture-book level after four years of formal English medium education. As early as 1970s and 1980s, Katigula, (1976); Mohamed (1975); Mvungi (1982) highlight problems related to the acquisition of English in primary school in Tanzania and the impact of this on English as the MOI in secondary schools. Particularly, a lack of adequate proficiency in English would result in the failure of other academic subjects. Similarly, Katigula (1976) evaluates how well English was taught and learned in Tanzanian primary schools. The results showed that even though most pupils had a positive attitude

towards English and were highly motivated to learn it, they demonstrated minimal achievements in English and mainly due to poor teaching.

In 1998 “Language as a Medium of Teaching and Learning” was discussed at the University of Dar es Salaam (UDSM) Academic Audit. The report indicated that “It was evident that most students have problems with the language medium of instruction (i.e., English). Proficiency in the language is low and leaves much to be desired” (Ishumi, 1999, p.71). After discussion of this problem, the UDSM panel nonetheless decided that English should continue as the MOI, considering the “current and projected global trends and the fact that English is fast becoming the Information and Communications Technology (ICT) language globally” (Ishumi, 1999, p.73).

Roy-Campbell and Qorro (1987) analyse data from a survey to test student reading competence in English. They found a vicious cycle whereby students were unable to understand English, they therefore could not understand subjects taught in English, and finally they failed the exams, which were in English. Based on an experimental study Brock-Utne undertook in 2015, she concluded that only in the Swahili teaching classroom did students demonstrate critical thinking skills and feel comfortable challenging authority. In a literature review, Qorro (2006) continues to emphasise that the classroom situation was deteriorating, and only a small number of students were actively engaged. Based on a headmaster’s report, in his school only 3 out of 50 teachers were fluent in English and could use the correct form while teaching. These findings resonated with Mosha (2014) who uses a mixed approach to find that under-qualified teachers may skip difficult topics due to insufficient English ability.

A quasi-experimental approach was employed by Galabawa and Lwaitama (2005) to explore student performance when the class was conducted in Swahili instead of English. They found that the majority of students in the chosen three schools had a better learning outcome when the MOI was Swahili. The top students had even higher results in the Swahili classroom and the bottom students had even lower performance in the English classroom. This argument was further confirmed by the findings published by the Uwezo (2017, 2016) in “*Are our children learning*” reports. All these studies reinforced the negative consequences of the continued use of

English as MOI. They concluded that student English proficiency was less satisfactory, and students show better academic achievements when Swahili is used as the teaching language.

This is particularly obvious in Vuzo's (2010) study where she also adopted a quasi-experiment to examine if there were differences in classroom discourse in geography classes taught in English and Swahili. The research was conducted in two public schools close to Dar es Salaam and with the topic being focused on "Features produced by water and wind in deserts" in English classroom and "the use of palm oil" in Swahili classroom. Based on 2005 Tanzania geography syllabus for secondary education form I – IV published by Ministry of Education and Vocational Training, secondary school graduates are expected to have some of the following competences (MoEVT, 2005b). First, they are anticipated to "understand this country and value it as his/her heritage", this is particularly important considering the palm oil is widely used in Tanzania (UNIDO, 2019). Second, they are expected to "observe, record, analyse, interpret geographical phenomena and conducts research." It can be inferred some general subject competences articulated in the syllabus is less likely to be achieved in English classroom due to frequent silent, a lot of repetition and the prevalent of code switching related to poor English skills. The research also concluded that using Swahili allows teachers to explain complex concepts in great details. It should be pointed not many researchers systemically link their observations to the syllabi and analyse if there is a difference between what indicated in the document and how it was implemented in the classroom. Paying attention to the syllabi is important as it can serve as a contract, a permanent record, and a learning tool (Parkes and Harris, 2002).

As explained above, lack of appropriate competence in English may also limit teachers' ability to develop students' understanding of the core content knowledge of their subject and limit their ability to develop pedagogical strategies, such as how to implement learner-centred approach in classroom (Mgyabuso and Mkulu, 2022; Qorro, 2013). Teachers tend to use safe talk during the class, especially for those whose English is not very strong. Learners are asked to fill the gaps in speech with words relating more to standard communication in English rather than to the content of the subject they are studying. The main strategy for the class is whole class call

and response, and teachers tend to use code switching and code mixing to facilitate the teaching process (Brock-Utne and Holmarsdottir, 2004). However, this approach goes against the learned centered pedagogy (LCP) promoted by the Tanzanian government and the international organizations (UNESCO et al., 2015). This is mainly because the students' inadequate English language proficiency hinders the implementation of LCP. Malisa and Lyamuya (2022) include 30 public secondary school teachers from Morogoro Municipality Tanzania and subsequently argued that effective LCP is based to several indicators. for instance, the class size, the learning environment, teacher and student background. Most importantly, the findings revealed that poor English skills among students, along with a lack of prior information and readiness, acted as barriers preventing them from actively participating in discussions and were therefore excluded from the student-centred approach and the associated cognitive benefits.

Existing research recognises the negative role played by using English as MOI. Few studies have linked it with OTL which is able to evaluate the complex nature of teaching and learning process that standardised tests failed to capture. Scheerens et al., 2017, p.2) suggest that “when a school’s aims, objectives, curricula and assessment programs are well aligned, the school has a higher chance of achieving better outcomes. They further emphasised that “Alignment between levels in various functional domains is a key concept in finding out why certain educational systems do better than others (p.7)”. Whilst some research has been carried out in Tanzanian public secondary schools (Brock-Utne et al., 2004; Brock-Utne and Holmarsdottir, 2004; Qorro, 2006; Rubagumya et al., 2021), there is still very little investigation into different types of schools in a systematic way. What is not yet clear are why certain schools are doing better than others; whether it is related to different OTL presented in different schools and whether the differences depend on the type of school, and how can the variations be accounted for.

Suggesting the use of Swahili as the MOI in Tanzania is not only based on an academic perspective. One rationale behind Swahili advocacy in the educational field is the relationship between language, tradition and cultural identity. There is general agreement that people can only learn within familiar thoughts, habits and experiences expressed by the traditional culture. Using the colonial language may be

viewed as a threat to the native culture. As Ngũgĩ wa Thiong'o suggests of Gikuyu, "The language, through images and symbols, gave us a view of the world, but it had a beauty of its own" (Ngũgĩ wa Thiong'o, 2005, p.11). Gikuyu gives him a harmonious sense of the world. This harmony would be broken when English abilities became a determinant of upward mobility. "Cultural nationalism" is embedded in the debate that language is both a product and reflection of culture, suggesting that using another language will disconnect us from the culture. His idea resonates with Prah (2003) who suggests that language policy is not just an academic problem; it is related to freedom and emancipation. Home language or mother tongue acts as a tool for the cultural and scientific empowerment of the local. The denial of the mother tongue will cause a sense of social and cultural inferiority.

Nonetheless, Appiah (1992) suggests that identities are complex, and people are constantly reinventing and redefining them. He illustrated that any attempts to build a uniquely African literature ignores the influence of the Western world and the multicultural nature of Africa. He argued that there is no such thing as an authentic identity, and an African who does not use an African language in school is no less African than those who do. Kadege (2010) further argues this view by insisting that the "learning process is always anti-traditional" (p. 71). Students should be encouraged to think critically and operate beyond their familiar context.

However other stakeholders, for instance, some parents and policymakers, argue that maintaining the use of English as MOI, mostly from practical, economic perspectives. Such as the high cost of translating teaching material into Swahili and related cost to HR. The lack of technical terminology and prime status of English; and that the best way to learn English is to use English. Godfrey (2014) interviews 27 different education stakeholders in 5 districts stakeholders between November 2011 and March 2012 on which language should be used as MOI and their attitude towards English as a global language. He find that human resources and financial burden played a significant role affecting policy education decisions regardless of which language the stakeholders thought should be used as MOI. However, simply not having enough funding to implement or translate the teaching material cannot justify the continued use of English as MOI. It could be argued that the country will suffer economically in the long term if the citizens are not productive. He also

identified that some teachers recommended English should be used from primary education as well as secondary education. At primary enough resources were given and believed students can benefit more using English than Swahili (Godfrey, 2014). The finding was in line with Rubagumya (2010) who surveys students and their parents and found that “to learn English” dominated the reasons why parents want to send their children to English medium schools. English suggests education, modernity and internationality. Parents and the government might expect students to “use one’s knowledge of English in furthering one’s education, as suggested from the secondary education English Language syllabus (Ministry of Education and Vocation Training, 2005, p.vi).

A possible explanation could be that if the MOI is changed to Swahili, then most student would be deprived of opportunities of learning English. It could lead to even worse English competence for secondary school graduates who may feel even more disadvantaged in terms of further study or employment which may require an adequate English level because they fail to “communicate effectively with other speakers of English both inside and outside the country” (Ministry of Education and Vocation Training, 2005, p.vi). Qorro (2013) sees this as a misconception. She claims that English is rarely used in the workplace in Tanzania, hence the requirement for everyone to be a fluent English speaker has no solid foundation. Having said that, she later points out that there are clear benefits to have communication in English in some circumstance. But this is more an argument for English to be taught as a subject rather than as the MOI for all subjects.

On the other hand, there are some arguments that English as the MOI is not the only reason accounting for poor academic performance. Kadege (2010) examines the relationship between secondary student scores and MOI (one group in English and one in Swahili). The results were surprising: student grades in both languages moved towards the same trend. Therefore, it is unfair to suggest that the MOI is the only reason for underachievement. Marwa (2014) argued that adopting English as the MOI had a strong global integration appeal. But this can raise concerns about losing national identity and cultural values. The Tanzanian government aims to cultivate bilingual citizens. However, the government overlooks that the majority of Tanzanians are already multilingual (Tibategeza, 2010).

2.6 Summary

In this chapter, I started with an explanation of the background of Tanzania and its education landscape. In the second section, I revised three vivid examples capturing what code mixing, switching and translation look like in Tanzanian secondary schools - as a way to demonstrate the experience of using English as the MOI for students and teachers, referring to Brock-Utne, (2002a, 2014) and Rubagumya et al., 1999). This section took a step back from focusing solely on examples from Tanzania to engage with contemporary literature from all over the world on multilingual education. I discussed two contrasting language ideologies: monoglossia and pluriglossia/transglossia, highlighting the harms of monoglossia in multilingual classrooms, such as epistemic exclusion (Kiramba, 2018). Additionally, the chapter explored other classroom language practices in a multilingual context, such as how translanguaging can expand and deepen students' understanding of concepts, promote inclusivity, and challenge anglonormativity (García and Wei, 2015; Guzula et al., 2016; Makalela, 2017, 2015). Moving back to the examples focusing on Tanzanian context, a range of concerns have emerged from these examples, such as less than assigned teaching time, content coverage, and instruction quality issues. All of them presented an OTL problem. In the fourth section, I have critically discussed how OTL started, developed and its applications. Then I have provided justifications of using OTL a theory proposed in the United States into understanding challenges of MOI policy in African country context. As a result, OTL in this research have three dimensions, which are i) content coverage, ii) instructional time and iii) quality of instruction, which I will address in finding chapters 4-6. The first two dimensions of OTL used in this thesis (content coverage and instructional time) inspired many researchers (Galabawa, 2000, Vuzo, 2010, Kurz and Elliott 2011, and Elliot, 2015) but mainly drawn on Oketch et al. (2012) and Carnoy, Ngware and Oketch (2015). In chapter 4 (section 4.4) and 5, I intend to explore the third dimension (quality of instruction) through instructional practices and instructional resources. The former includes the following factors: positive reinforcement, explicit/direct instruction, instructional grouping formats, questioning students, provision of corrective feedback, and classroom climate. The listed indicators are chosen for their close relevance to my research and for demonstrating a moderate to high effect size from empirical literature (Brophy and Good, 1984; Gersten et al.,

2009; Kurz, 2011a, 2011b). As shown in findings chapter 4.2 and 4.6.2, instructional resources are a combination teaching experience, teaching and learning material (such as textbooks) and school conditions, which are among the most frequently cited factors associated with OTL raised by Winfield and Woodard (1994). Taken together, I will use three dimensions of OTL to structure my findings in the remainder of this thesis.

Additionally, I have also reviewed alternative OTL models from previous literature and provided reasons why these might now be the most relevant frameworks to explore MOI issues in Tanzania. For example, the model used in the Educate America (1994), does not include time as a OTL indicator, while it proves extremely necessary in developing countries (Gillies and Quijada, 2008). The fifth section was an extensive review of the long-lasting debate of MOI in Tanzania. It recognised the difficulty of choosing a national language in a multilingual country and the inseparable nature of language with culture and identity. But the focus here was on the impact of using English as MOI from their academic performances, reading skills among others through domestic and international journals and reports. The work of Roy-Campbell and Qorro (1997), Brock-Utne and Holmarsdottir (2004), Qorro (2013), Brock-Utne (2022, 2012, 2001b) on MOI is extensive, but it has failed to connect MOI with OTL, whereas Carnoy, Ngware and Oketch (2015) have looked at OTL in three country contexts, which can provide a useful framework to study MOI's effects on OTL in Tanzania. Therefore, this research builds on this work of Carnoy, Ngware and Oketch to study MOI and OTL in Tanzania's three types of schools.

Chapter 3 Research Methodology

Introduction

This chapter begins with an introduction to the two major research philosophies: positivism and interpretivism. My research was guided by interpretivism, which significantly influenced various aspects of my study. First, it shaped my interest in the research questions, which seek to understand the experiences of students and teachers when English is used as the MOI from the perspectives of student and teacher lived experiences who are the experts of their own life. Interpretivists believe that different people can experience the same event differently based on their reality (Bryman, 1998; Creswell, 2023). Second, interpretivism informed my research design, allowing me to integrate findings from surveys, classroom observations, and semi-structured interviews. This triangulation of methods allowed me to extract and highlight salient themes effectively. Additionally, this chapter includes a review of previous literature examining MOI and OTL both within and outside of Tanzania, using similar methods to inform my methodological decisions.

This research was conducted during the Covid-19 pandemic which posed unexpected challenges for fieldwork. As a response, and in consultation with my supervisors, I decided to hire a Tanzanian PhD student as a research assistant (RA) to support data collection. I therefore elaborated on the process of collaboration and discuss ethical related issues and how they were addressed in the third part of this Chapter. The discussion is then followed by an exploration on how my positionality as a Chinese researcher, interested in and researching MOI through OTL framework in Tanzania, influenced data collection and interpretation. Additionally, I outlined the methods used to collect and generate data and critically discussed its merits and limitations, and examined how these methodes complemented each other. The Chapter ends with a description of how data was analysed.

3.1 Research Philosophy

A research philosophy is a framework that shapes how research is designed and conducted. It represents 'a worldview that defines, for its holder, the nature of the

“world,” the individual’s place in it, and the range of possible relationships to that world and its parts’ (Tamminen and Poucher, 2020, p.535). The concepts of research philosophy is central to researchers because it provides a foundational worldview and scientific paradigm for inquiry (Gelo et al., 2008). This paradigm serves as a guide by offering a framework of assumptions and beliefs that shape the research process.

Social scientists explore complex social phenomena and try to make sense of the world and the humans around them (Abbott-Chapman, 1993). In the wider scope of research theory within the social sciences, two major research philosophies emerged, namely positivism and interpretivism (Galliers, 1991; Williamson, 2006). The differences between the two approaches go beyond the ways of data collection and links to a different philosophical foundation. Explicitly, the two approaches hold contrasting positions regarding the ontology (the nature of the reality and particular phenomena, the relationship between the unknown and the researchers) and epistemology (the methods of investigating the events) (Dawadi, 2017; Guba, 1990; Sale et al., 2002). In the following section, I briefly explain these two main research diagrams: positivism and interpretivism and highlight how this research is guided by interpretivism.

3.1.1 Positivism

The concept, positivism, was developed by several scholars, such as John Stuart-Mill, Richard Avenarius, Herbert Spencer, and Ernst Mach. But one of the notable theorists was French sociologist Auguste Comte in the 1830s who believed that knowledge could only come from positive affirmation of theory via strict and systematic scientific methods, such as information from sensory experience, empirical and measurable evidence. All phenomena can be reduced to indicators and proven by science (Comte, 1880). At the time, quantification had been emphasised by the advocates of a science of society. Physics, chemistry, and metathetics, which involve a large amount of quantification, are being regarded as “hard” sciences, in contrast with social sciences, which are being labelled as “soft” sciences (Guba and Lincoln, 1994). There are widespread beliefs that scientific

knowledge is the only authentic knowledge. It can only be obtained through quantifiable data, and to explore or understand something “is to show that it conforms to well-established scientific laws, such as those relating the pressure, volume, and temperature of gases” within the realm of positivism (Keat, 1979, p.76).” Commenting on positivism, Hirschheim suggests "Positivism has a long and rich historical tradition. It is so embedded in our society that knowledge claims not grounded in positivist thought are simply dismissed as ascientific and therefore invalid" (Hirschheim, 1985, p.33).

Positivists see the world as static and that the truth is out there for researchers to obtain, knowledge and facts can be gained through direct observation and measurement and what required is a better tool (Guba and Lincoln, 1994; Hammersley and Lüdke, 2009; Muijs, 2011). They see reality as single and tangible, and the researchers and the knowledge are independent and separated. Positivists believe that it is possible to create new knowledge free from bias and that facts can exist separately from the influence of people or researchers and the world around them (Dawadi, 2017). To establish a relationship between variables and make a prediction within a value-free and objective-based framework, positivists try to detach from the participants by following randomization and highly structured procedures (Denzin et al., 2023). The sample size for positivists is much larger than those who choose qualitative approaches to ensure the sample is representative (Carey, 1993; Tuli, 2011).

With that being said, positivism is not applicable for my research where the interactions among students, teachers and myself are central to answer the research questions, and this process is inherently subjective and varied. The quantitative methods that positivists tend to use might not be able to fully capture contextual and complex nature of the impact of MOI switch on individual students (Denzin et al., 2023). Guided by the interpretivism, my role as a researcher was to use research tools and my experience such as my worldview to better understand and interpret responses of research participants.

3.1.2 Interpretivism

The concept interpretivism has the roots in the philosophical traditions of hermeneutics (the study of interpretation) and phenomenology (the study of an individual's lived experiences within the world), and the German sociologist Max Weber is usually credited with being the central influence (Chowdhury, 2014; Crotty, 2014). One can argue that the emergence and rise of interpretivism is a direct contrast to positivism in an attempt to understand and explain human society since "humans are different from physical phenomena because they create meanings (Saunders et al., 2023, p.150)". Interpretivism approaches look for culture-derived and socially situated interpretations of the social world rather than generalise and predict the causes and effects (Bryman, 1998; Creswell, 2023). Interpretivists explore the social phenomena from those being studied, intend to make sense of the world through high involvement in the lived experience, which is in line with what this research aims to understand by providing richer and deeper interpretations of the impact of MOI switch on student OTL in Tanzanian secondary schools. Research questions set in Chapter 1 would not be addressed without deep interactions with students and teachers. This is because, first, different people may experience the same event differently based on their reality and unique perspectives, and second, participants are experts in their own experiences (Walia, 2016).

The interpretivism approach is inductive, and researchers intend to explore the feeling, motivation, rationale of the participants in a contextual situation (Neuman, 2006). Generally, interpretivism researchers are open to new knowledge throughout the study and construct new experiences with the help of the people who have been studied as there is no one truth, and life is multi-faceted (Cain and Finch, 1981). They usually have certain insights into the phenomena before they begin with the study; however, they believe their understanding is limited and insufficient to develop a fixed design due to the complexity and changing nature of human behaviours (Guba and Lincoln, 1994; Neuman, 2006). As noted by Hudson and Ozanne (1988), the use of such a collaborative approach reflects that researchers believe a human can adapt. No one can gain prior knowledge without considering time and context, and also "reflect the emergent willingness to defend the integrity of human sciences as distinct from the natural sciences" (Gelo et al., 2008, p.270). Interpretivists often

choose qualitative approaches in conducting their research (Sale et al., 2002). It focuses on detailed and in-depth word descriptions instead of numbers; participants are allowed to perform in a natural setting (Walia, 2016). As noted by Leedy and Ormrod (2014), qualitative research is less structured in the description as it aims to generate new theory. The development of the qualitative approach has contributed to an overall systematisation of social research as it provides a unique perspective for researchers to understand human beings, their behaviours and the world around them (Alasuutari, 2010).

This section has reviewed the two traditional and opposite research paradigms, interpretivism and positivism. It has further clarified this research is guided by interpretivism as a result of the alignment with the research questions via the lens of student and teacher lived experiences. The section that follows moves on to consider research design, elaborating on how it is informed and structured by the interpretive framework.

3.2 Research Design

This study is a multi-site case study of the three schools in rural Tanzania. A multi-site case study examines multiple cases within their real-life context to understand an organisational phenomenon. It employs various case study methodologies to tease out insights that are both contextually rich and meaningful (Audet and d'Amboise, 2001; Jenkins et al., 2018). To answer the research questions set out in Chapter one, this research has applied an interpretive approach.

Research Questions:

1. How does Tanzania's MOI policy affect student OTL in terms of instructional time, content coverage and quality of instruction in secondary schools?
2. How do the effects of MOI on OTL vary by school type (community, private and public schools), and what may account for this variation?

As noted by Yin (2014), when researchers want to answer "how" and "why" questions, including the contextual conditions, and have little control over events, case studies can be beneficial. This case study is a detailed analysis of a single

individual, a small sample of people, a particular situation, one or a group of organizations; which was expected to be an intensive process (Meyer, 2001; Sagadin, 1991; Yin, 2014). Such an in-depth analysis aims to understand as much as possible about a particular phenomenon within a context via several sources of evidence (Jacobsen, 2002). My dedication to exploring the intricacies of student and teacher behaviour and social interactions related to MOI and OTL within their natural settings highlighted my commitment to the interpretivist belief that reality is shaped by their lived experiences and social contexts. I believe that to make sense of student and teacher's behaviours, feelings and responses in a contextual situation is essential to decipher the response of the research of participants. To better unravel the complexity of MOI in regard to OTL in Tanzanian schools, I have opted for a mixed methods approach as it will help me to unravel the many challenges of what works and what does not work in the classroom settings. Johnson et al. (2007) defined that mixed methods research is the type of research "in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purpose of breadth and depth of understanding and corroboration (p.123)". Implied from this definition is that mixed-method research involves using both quantitative and qualitative approaches in a research project (Cara, 2017). The combination of qualitative and quantitative approaches can support more reliable scientific inferences than using one approach in isolation (Feuer et al., 2002; Runeson and Höst, 2009). Instead of being the "purist", educational researchers should avoid epistemological differences between qualitative and quantitative for practical reasons and be the "pragmatists" (Bryman, 2016; Tuli, 2011). Mixed research approaches are designed to be better suited to unravelling the complexity of education and are in a better position to determine what works (Creswell, 2023; Leech et al., 2011).

Even with the popularity of the mixed research approach in the social science field, there is little guideline of the exact way to combine qualitative and quantitative methodologies. Creswell and Plano Clark (2007) concluded four major mixed research designs, which are a) triangulation design, b) the embedded design, c) the explanatory design, and d) the exploratory design.

Table 3.3 Four Main Types of Mixed Methods Design

Design Type	Timing of quantitative and qualitative phases	Relative weighing of quantitative and qualitative components	Mixing-when quantitative and qualitative phases are integrated	Notion
Triangulation	Concurrent	Equal	During interpretation or analysis	Quantitative + Qualitative
Embedded	Concurrent or Sequential	Unequal	One is embedded within the other	Quantitative (qualitative) or Qualitative (quantitative)
Explanatory	Sequential, quantitative then qualitative	Usually quantitative is given priority	Phase 1 informs phase 2	Quantitative → Qualitative
Exploratory	Sequential, qualitative then quantitative	Usually qualitative is given priority	Phase 1 informs phase 2	Qualitative → Quantitative

Source: Borrego et al., (2009) adapted from Creswell and Plano Clark, (2007)

As the most widely used mixed research approach, concurrent triangulation (type a) is to use both qualitative and quantitative data collected at the same time to cross validate findings after integrating them during analysis. Triangulation design is often used when the researchers attempt to compare and contrast the results generated by qualitative and quantitative or to expand quantitative findings with qualitative data (Cara, 2017). The purpose of this is to bring the strength of each type of data to better answer research questions. This indicates that an individual type is not capable by itself and therefore it is necessary to combine both forms of data to get a comprehensive understanding of the research problem (Cara, 2017; Creswell, 2023; Creswell and Plano Clark, 2007). Campbell and Fiske (1959) first introduced the idea of triangulation, which they referred as “multiple operationalism” (cited by Johnson et al., 2007, p.114), however, at that time, instead of formulating a research methodology, the idea was primarily a measurement and validation skill. Their concept has been extended by (Webb, 1966) who is given the credit of the first researchers to coin the term triangulation with between and cross types of triangulation. The outline of how to triangulate mixed methods was not proposed until Denzin (1978) who suggested that triangulation is “the combination of methodologies in the study of the same phenomenon (p.291)”. Apart from categorising triangulation into four types (data, theory, investigator, and methodological triangulation), he also differentiated the between-triangulation (using both qualitative and quantitative approaches) and within-triangulation (using either multiple quantitative or multiple qualitative approaches).

Denzin (1978) and Jick (1979) believed the between-triangulation could generate better and superior findings for interesting social issues by increasing the depth and breadth of the research. As well as uncover the contradictions which single approach is unable to reveal. Two types of triangulation methodology were proposed by (Morse, 1991) which are simultaneous triangulation and sequential triangulation. The former is the concurrent use of either two approaches with limited interaction between the two. The latter is the use of either qualitative or quantitative approaches first and then uses another approach to explain the findings generated by the first approach.

The embedded research design (Type B) differs from concurrent triangulation which gives equal weight to both types of data and can potentially generate disagreeable results. In the embedded design, one type of data (qualitative or quantitative) is given priority as the dominant source, resulting in unbalanced data prioritisation. This type of approach can be adopted when one intends to use one form of data to support the other. Data is often collected at different stages but there is a small phase where data might be collected at the same time, so it belongs to concurrent type (Creswell and Plano Clark, 2007). In the sequential approach, data is collected in distinct stages. Explanatory design (type C) starts with the collection and analysis of quantitative data and is then followed up by qualitative data. This is included to explain or make sense of the quantitative findings. The emphasis is on quantitative data. Exploratory design (type D) is the opposite with emphasis on qualitative data. This type of research is used when little is known about the field or “in a relatively understudied area” (Borrego et al., 2009, p.59).

In my research, I have adopted the sequential approach. Data collected first from students and teachers would be analysed first and then lay a foundation for the second stage of data collection. Specifically, starting with surveys allows for the collection of broad quantitative data from a relatively large sample, giving me an initial overview of school environment, student and teacher demographic information and how the MOI switch impacts student OTL. Surveys can identify general trends and patterns that are prevalent across the participants among three schools. Following up with classroom observations provides a more detailed view on student and teacher behaviours. This method allows me to capture the dynamics of the

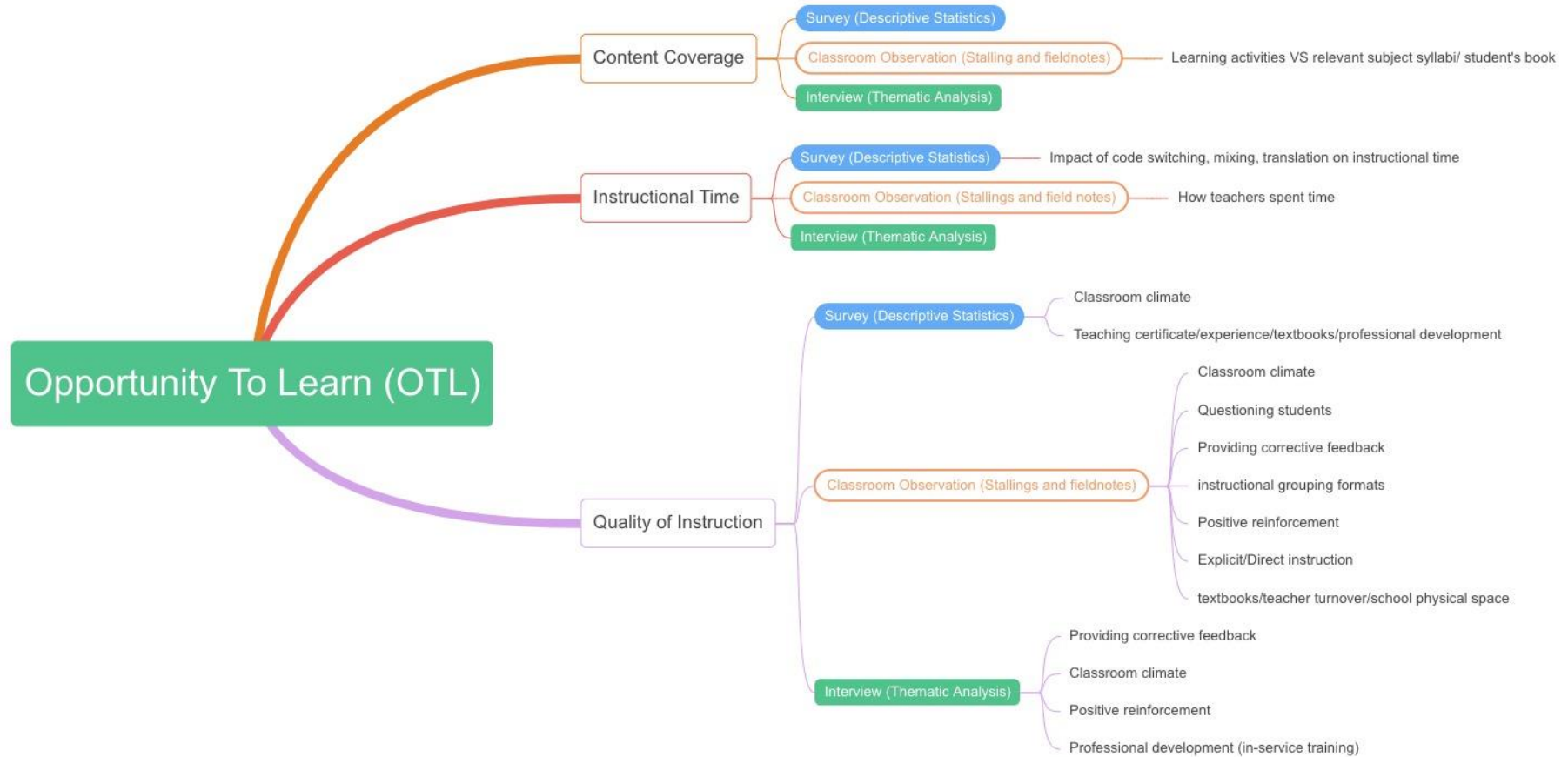
classroom and the immediate impacts of MOI on student engagement and interactions between students and teachers. Observations can reveal subtleties that surveys might miss, such as non-verbal responses to instruction or interactions that indicate comprehension or confusion, and in what situation teachers might adopt translanguaging to get their information across. Conducting interviews as a third step dig deeper into the qualitative aspects, offering insights into the personal experiences, perceptions, and feelings of students and teachers regarding the MOI. Interviews can explore the reasons behind the trends identified in survey data and observed behaviours. The design turns out to be a highlight of the research, allowing for in-depth exploration of specific observations—for instance, why boys are more likely to raise their hands to answer questions, why some students miss certain teaching hours, behaviours noted during classroom observations, or why teachers from a particular school hold different opinions compared to their peers from other schools, as indicated by survey results.

Taken together, adopting a mixed method approach with a pragmatic philosophical view and sequential triangulation was therefore the most suitable to answer the proposed research questions. To explore the impact of the switch of MOI on student OTL, this research was developed in phases. The first phase was explorative with the aim of getting the initial view of students and teachers through surveys. The second phase was classroom observation. It benefited from some of the insights gained during the exploratory phase. These benefits were facilitating observation protocol based on survey results, contextualising the MOI policy into real teaching practice, and laying a foundation for individual interviews. The final phase was semi-structured interviews. This allowed participants to freely express their thoughts, feelings, and experiences and allowing me to ask for clarifications.

3.2.1 OTL Data Collection and Analysis Summary

In this section, I first present a chart (Figure 3-1 below) summarising the three elements of the OTL framework and their corresponding data collection methods to substantiate each element. I then elaborate on the rationale for selecting surveys, classroom observations, and semi-structured interviews as my data collection methods. These methodological choices have been informed by prior research (Brock-Utne, 2007a, 2007b; Brock-Utne et al., 2019; Carnoy et al., 2015; Oketch et al., 2012; Qorro, 2006; Rubagumya, 1989, 1994)

Figure 3-1 Data Collection and Analysis Summary



The OTL framework is central to this research and includes three elements: content coverage, instructional time, and quality of instruction. These three elements are prevalent issues in Tanzanian secondary classrooms, as indicated by previous literature and observations from my initial visit to Tanzania. Additionally, as previously discussed in Chapter 2 section 3, these three elements all co-occur during instruction. Specifically, to provide students with opportunities to learn the intended curriculum (i.e., academic content standards), teachers must invest instructional time addressing the prescribed knowledge and skills. In addition, teachers must also cover the content in the academic standards to provide students with opportunities to learn the content most assessments actually measure. Knowing how much time is spent on instruction and what content of the intended curriculum is covered is important. However, these two variables alone do not indicate how instructional time and content affect learning. Information on the quality of instruction is also essential (Elliott and Bartlett, 2016; Kurz, 2011a, 2011b).

The first element aims to determine how the MOI influences content coverage. This is assessed using self-reported teacher surveys, classroom observation as well as detailed semi-structured interviews. Several lines of evidence indicate some developing countries in Asia and Africa faced lack of content coverage (Brunetti et al., 2020; Sinha et al., 2016). In previous study exploring OTL in Kenya, South Africa and Botswana, Carnoy et al. (2015) define OTL as curriculum coverage and demonstrate teachers with greater mathematical content knowledge tend to offer broader coverage of mathematical concepts to their students, as they feel more at ease with the subject matter in the curriculum.

In these surveys I designed, respondents used a Likert scale (1=strongly disagree; 2= disagree; 3=neutral; 4=agree; 5= strongly agree) to address questions about whether their proficiency in English hinders their ability to cover complex or in-depth topics. As well as whether a shift to Swahili or another familiar language would allow teachers for more comprehensive coverage of the curriculum. Descriptive statistics were obtained from the percentage distribution of responses. To explain curriculum coverage, I also compared the learning activities observed during classroom observation with those that suggested in the relevant subject syllabi. Semi-structured interviews provided additional insights into these issues, with questions exploring

challenges faced by students when transitioning to secondary school and their feelings about being in an English-speaking environment for the first time (Joyce-Gibbons et al., 2018). This qualitative data complemented the quantitative survey data, providing a multifaceted view of the impact of MOI switch on educational content coverage.

In this study, the assessment of content coverage primarily relies on teacher self-reported surveys and interviews, rather than entirely on conventional definitions such as completed topics or units, and mastery of objectives as outlined in the syllabus. Although teachers might not provide the most accurate answer or choose answers catering social desirability (Bergen and Labonté, 2020; Caputo, 2017; Mayer, 1999; Nederhof, 1985), I decided to adopt this approach partially relying on teacher self-reported surveys and interviews. This decision came from insights gained during field visits, where teachers explicitly indicated to me that they possess the flexibility to allocate instructional time as needed, provided all topics are covered before the final examinations. This approach reflects my belief that participants are experts in their own experiences. For instance, at Private School A, where two sessions (periods) of English subject were observed, students were learning the past tense. The syllabus allocated 12 periods (with each period lasting 40 minutes) to this topic (talking about past events/activities). However, as the RA was only able to observe two of these periods, it was not feasible for me or the RA to ascertain whether the teacher managed to cover all prescribed units or topics in the remaining time; or what percentage of the material was covered. I aimed to establish trust with participants and be critical of what they answer and adopt indigenous lens in my research (Boulton, 2012; Keikelame and Swartz, 2019; Morrison et al., 2018). Consequently, the survey questions which directly asked teachers if their English proficiency sometimes prevent me from covering difficult topics or covering topics in depth offers a more direct understanding of content coverage. With that being said, I also compared the observed learning activities during classroom observation with the relevant syllabi and student's book published by the Tanzania Institute of Education to better understand content coverage.

The second dimension of the OTL framework investigates whether using English as MOI affects instructional time, as well as identifying other factors that may lead to

reduced instructional time. The approach to understanding this dimension involved several methods: Likert scale-based surveys ask teachers to reflect on whether they need to spend additional time in the classroom using strategies like code-switching, code-mixing, and translation to communicate their information effectively. Students were given opportunities to express their opinions through open-ended questions found in the last section of the questionnaire, such as whether they believe more instructional time is necessary for content comprehension.

Moreover, classroom observations form a crucial part of data collection for instructional time (Abadzi, 2009; Behar-Horenstein et al., 2006). The Stallings Classroom Observation system was adapted for this purpose, capturing both binary data, such as punctuality of teachers and their presence throughout the class, and ratio data like the count of students present before and after observation sessions (The World Bank, 2017). Qualitative data was also gathered by the RA to understand reasons behind student absences (if any). An example of an interview question to probe further into the impact of language strategies on teaching time might be: "Do you think using code switching/mixing/translation will affect your teaching time, as you need more time to cover everything in the syllabus? If yes, please elaborate on that." The qualitative data from open-ended questionnaires and interviews with teachers were analysed under the influence of Braun and Clark's thematic data analysis framework (Braun and Clarke, 2006). This approach was helpful in extrapolating themes and patterns related to instructional time from the raw data.

The primary data sources for the data collection for the third element, quality of instruction mainly came from classroom observations, with surveys and interviews complementing each other. As Ngware et al. (2014) indicate, "one cannot talk of quality education without examining teaching and learning processes. Classroom interaction is therefore at the heart of quality education (p.11)." I aimed to measure instructional practices through positive reinforcement, explicit/direct instruction, instructional grouping formats, questioning students, providing corrective feedback, and classroom climate. Surveys, interviews, and classroom observations were utilised to gather data on classroom climate. Data on the provision of positive reinforcement, explicit instruction, and corrective feedback collected primarily through classroom observations and semi-structured interviews.

In terms of instructional resources, surveys and interviews were adopted to gather information regarding teacher experiences. For instance, teachers will be asked to indicate their length of service through a question such as "How long have you been a teacher?" Additionally, teachers had the opportunity to select their educational background within the survey. To assess the availability of teaching resources, such as textbooks, technology, and support materials, a combination of surveys, classroom observations, and interviews were employed. A sample survey question within the Stallings Classroom Observation system explored the accessibility of textbooks and other printed materials, with responses ranging on an ordinal scale from 'entire class' to 'very few' (The World Bank, 2017). Classroom observations and interviews conducted with the RA were used to gather information on whether students and teachers have adequate physical space. Additionally, interviews were conducted to assess expectations for student learning, incentives for student attendance, and parental involvement. Classroom observations were utilised to gather data on the presence of a safe and orderly learning environment, teacher commitment, as well as teacher turnover and attendance (Játiva et al., 2022; Karamperidou et al., 2020; Raikes et al., 2020).

I did not include every factor associated with OTL that is frequently cited in the literature in the instructional resources (Winfield and Woodard, 1994; Banicky, 2000). Instead, I focused on the factors that were most relevant to my study and accessible for analysis. The exclusion of certain factors, for example, the equitable finance formulas within and between schools/districts, was not an oversight, but further demonstrated some practical challenges in social science research, where participant willingness and availability might not be guaranteed (Azungah, 2019; Patel et al., 2003; Jensen, 2016). Although direct access to the specific financial formulas was not available, indirect financial information was gathered during my observations and conversations with teachers. This included details on school funding sources, the provisions of chairs and desks, teacher salaries, and the allocation of textbooks, which were collected through interviews with teachers and classroom observations.

This section briefly connected three elements of OTL framework with corresponding methods and types of data used to evidence each element. The next part of the

section moves on a detailed discussion of surveys, classroom observations, and semi-structured interviews in previous studies, and how these methods support the answering of my research questions.

3.2.2 Surveys as a Method

In this section, I discuss why I chose to use surveys as a method, the expectations associated with this method and how it helped answer my research questions. My approach was adapted from closely related studies, specifically from Oketch et al. (2012) and Carnoy et al. (2015) amongst others. I used the survey questionnaire and conceptualised the OTL variables (instructional time, content coverage and quality of instruction) into 5-point Likert-type questions (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly agree). Building on these studies was relevant to studying MOI and OTL in Tanzania for the following reasons. First, they provide an operational OTL framework in developing countries, especially in the East African and the Tanzanian contexts. Second, these studies make use of multilevel modelling, with differences in student achievements divided into different levels. Even though this research did not incorporate multilevel modelling. The recognition of the nested data structure allowed me to narrow down my focus to the pupil level. This was useful because I did not have access to such a large sample size or manpower to conduct cross-country research similar to Carnoy et al., (2015). Nevertheless, I drew inspiration from their methodology and concepts in designing my research.

In addition to the Likert data, I included several survey questions such as, “how often do you read English books?”, “how many books do you have at home (for students)?” and “how often do you use coping strategies (code switching, switching and translation) in the classroom (teachers)?”. I included these questions because children’s reading engagement and their attitude towards reading often depend on whether they have access to books (Evans et al., 2010; The World Bank, 2008b). Additionally, much of the literature of using coping strategies focuses on teachers’ replies, with data mainly collected through observations. The benefits of including questions from the student point of view, I aimed to enable a more robust analysis and get richer contextual information. However, there are certain drawbacks

associated with the use of these questions. One of these is that there would be response bias in the self-reported surveys. Therefore, a pilot study was taken to ensure the validity and reliability of the research instrument.

Student demographic information, such as gender, age, socioeconomic status (SES)⁸ were collected to analyse whether the OTL varies between gender and SES status on pupil level. For teachers, their educational background, years of teaching, age, and gender were also collected. Learning experience can differ significantly for students from different SES backgrounds. Minorities such as African Americans and Hispanics are more likely to study in classrooms with fewer OTL variables, even when holding ability variable constant (Gross, 1993; Jackson, 1982; Marrett, 1981; Raizen, 1994; Wang, 1998). Wang (1998) examines student OTL and their level of science achievement in 5 public schools in Los Angeles. Among 623 eighth graders, he found that female students and minority (African-America and Hispanic) students scored significantly lower than majority students (Asian and Caucasian students) on pre-test and post-tests, when holding other variables constant. Wang defines the OTL variables as a four-dimensional concept. This includes content coverage, content exposure, content emphasis and the quality of instructional delivery.

Wang (1998) believes OTL is “a multidimensional concept; it must be measured in multiple ways in order to capture students' learning environment, evaluate its quality, and document its effects” (p.150). However, SES variables in his study had a relatively limited coverage, including only the availability of textbook. But the education system in Tanzania and USA are very different. MOI as applied in the USA is different from MOI policy in Tanzania. According to data from Joint Monitoring Programme WASH (2021), 88.8% of people living in urban Tanzania use at least a basic drinking water service in 2022, the number increased from 80% in 2013. However, the percentage for people living in rural areas is much lower, at only 45% in 2020. This means in a country with the 61% rural population, over half of them do not have at least a basic drinking water service. While the number for USA is 97% (The World Bank, 2022b). Access to clean water supply has been included in

⁸ parents' education background, family income, the availability of piped or protected water source, the availability of radio, TV, mobile phone, bicycle.

the SDG 6 (Ensure access to water and sanitation for all) and it is not only a health issue, but it also has implications for education (Hope, 2021). For example, access to clean water affects student ability to arrive at school on time and their energy levels (UNICEF, 2021). Nevertheless, Wang's study suggests a potential role of SES indicators in OTL research, considering OTL is a "multidimensional concept".

Carnoy et al., (2015)'s research was more relatable for the Tanzanian context as it was conducted in three African countries (Botswana, Kenya and South Africa). They found SES factors could have a direct or indirect association on student learning outcomes "through its potential impact on teacher/school expectations of students and the process of teaching itself (p.203)". Therefore, they included similar questions, such as the number of books at home, the availability of cars/fridge/magazines at home. They found that although student average SES does not significantly relate to OTL regarding to quality of instruction, SES has different impacts on students in different countries. Specifically, students having higher SES have significantly less curriculum coverage in low scoring Kenyan schools. In South Africa, there was a positive relation between teacher test scores and average class SES. Overall, these studies highlight the need for having SES indicators in the OTL research.

All of the studies reviewed here supported the use of surveys as a data collection method, as they are a widely accepted and traditional way of analysing MOI and OTL. Surveys also have the potential to reach a wider audience and provide a basic picture of each school. Data from surveys were expected to present the feature of different schools and generate focus or guidance for following classroom observation and semi-structured interviews.

3.2.3 Classroom Observation as a Method

Following the surveys, the second method used was classroom observation. This is a well-established approach to explore student and teacher experience while using English as MOI in classrooms (Joyce-Gibbons et al., 2018; Qorro, 2006, 2013; Rubagumya, 1989, 1994; Simasiku, 2016; Vuzo, 2010). Classroom observation was one of the three methods suggested by Winfield (1993) to measuring the content

coverage. As she points out “direct observation of classroom instruction by trained observers might yield the most valid measures of content covered” (p.12). The classroom observation method was particularly useful and was the most direct way to get first-hand information in answering the question of how the language policy was being implemented in different schools. In additionally, Zhang and Schmidt (2024) further suggest that classroom observations are often considered the most reliable method, as they provide objective data and can serve as a benchmark for validating self-reported approaches to in OTL measurement.

Another advantage of classroom observation is that it gives researchers time to reflect and narrate the situation. It can also serve as a tool for teachers to improve their own teaching practice and enhance learners' experiences (Lam, 2001). However, there are certain drawbacks associated with the use of classroom observations. For example, the evaluative nature of classroom observation approach can cause the observed being nervous (Cockburn, 2005). Some teachers have claimed, “it’s about putting on a show for the inspectors” and made them “less effective than usual”; and some noted “I hate it ... it changes things ... the situation becomes artificial, and nobody behaves normally...” (Cockburn, 2005, p.377-378). There is also the potential for Hawthorne effects due to the teachers being conscious of the presence of an observer in the classroom (Armenti and Wheeler, 1978; McCambridge et al., 2014). Observer bias is not uncommon in social science research, but it could be mitigated through following a six-step protocol proposed by Oswald et al., (2014), which includes, 1) gauge the person; 2) create a non-threatening perception; 3) introductions; 4) establishing a rapport; 5) relaxed signals and 6) link to a conversation area.

Some examples of using classroom observation as a method to explore the impact of MOI on students were explored in Chapter 2 when introducing what code switching, mixing and translation mean (section 2.2.2-2.2.4). However, what I hoped to get from classroom observation is an exploration of what language students used in the classroom; whether the code switching, mixing and translation exists or other language practices in different type of schools; in what situation these strategies were used and the students' reaction. Classroom observation was also helpful to explore how much time Swahili was used compared to English, providing different

stakeholders with a clearer understanding of how language policy is implemented at the ground level.

3.2.4 Semi-Structured Interviews as a Method

Finally, the semi-structured interview was chosen as a data collection method because it can be complementary to the questionnaire and classroom observation by offering deeper insights into teachers' and students' perspectives. A semi-structured interview is a dialogue or conversation between the interviewees and the interviewers. The interviewers have a clear understanding of what they want to find out by asking a series of questions often with flexibility and variation. This method is particularly suitable for exploring "Why rather than How Many or How much" (Fylan, 2005, p.66). One advantage of using in-depth interviews was that they focused on detailed and in-depth word descriptions, such as participant thoughts, feelings, beliefs and experiences instead of numbers (DeJonckheere and Vaughn, 2019). Additionally, participants were allowed to express themselves in a natural setting (Punch, 2013; Walia, 2016).

Semi-structured interview has been used widely to assess Tanzanian students' experiences when English is used as MOI in existing literature. Rubagumya (1989) interviewed students across 8 secondary schools after conducting questionnaire and classroom observation to understand how they feel about using English and Swahili. Rather than treating their participants as mere "research objects," researchers like Brock-Utne (2007, 2002) and Brock-Utne et al., (2019) maintained a connection with them by conducting detailed interviews with stakeholders and observing classrooms to gain first-hand insights of the teaching and learning process. They focused on student and teacher's body language, non-verbal and verbal information. Through participants and researcher's interactions, the public audience can have an in-depth understanding of this educational challenges being studied. Semi structured interviews were chosen also in Vuzo (2012) where she aims to understand how different stakeholders think code switching and mixing.

In more recent studies, the semi-structured interview has proven to remain a popular approach worldwide in understanding how code-switching and mixing affect learning

and its implications. For example, it was used to explore student issues of learning English and understanding their habit of using code mixing and switching in a Pakistan university (Baloch and Lohar, 2021). In the Philippines, in-depth interview (IDI) was used to examine college instructor's and student perception of code-switching. In addition to offering rich and detailed descriptions from key stakeholders, IDI was adopted for its ability to support and consolidate findings from previous classroom observations (Villanueva and Gamiao, 2022). Temesgen and Hailu (2022) uses semi-structured interview to explore Ethiopia's teachers' attitudes on how they perceive code switching. This method was adopted because it provided the opportunity to examine this phenomenon in its natural setting, and avoided any potential alterations to the teachers' behaviour that could arise due to manipulative methods.

Good (1988) argues that "one role of observational research is to describe what takes place in classrooms in order to delineate the complex practical issues that confront practitioners" (p. 337). Classroom observation records what happens while teaching; with the researchers taking notes or using a video camera to record every word said and reveal the authenticity of the classroom. This allows people outside of the classroom to analyse, evaluate and reflect.

On the other hand, in-depth interviews can uncover valuable insights through two-way communication (Cacciattolo, 2015). Although observation and interviews are different approaches, both aim to gain a thorough grasp of the situations being researched, particularly for how individuals act and think (Goodwin and Horowitz, 2002; Lee, 1993). The combination of the two can benefit researchers by allowing them to stay as near as possible to the research context (Goodwin and Horowitz, 2002). Thompson (2000) argues that it is natural for researchers to combine two observation and interviews for compatibility. Mason, (2017) further elaborates on the compatibility of the observation and interview because the former directs the researcher to essential questions, they should ask their subjects. Such as how code-switching, mixing, translation or other translanguage strategies are implemented in the classroom. While the interview helps researchers understand what they have observed. For example, the real insights captured by researchers in the classroom and survey can shed light on follow-up interview questions, such as "What makes

you feel when teachers use English as MOI?" and "Under what circumstance do you want teachers to use code-switching/mixing and translation." This is because it is impossible to ask students feelings during the class.

Patton (2015) argues that when video observations and interviews are used together, the different focuses offer various perspectives that support the research criteria. These are not the same as the traditional scientific research criteria, with its emphasis on objectivity and consistency across methods and data sources. Thus, diverse sources do not necessarily support the same interpretation, instead, they present a range of viewpoints shaped by the focal point of the analysis rather than striving for impartiality. The triangulation of both data collection methods is to "capture complexity rather than searching for a singular truth or causality (Molbæk and Kristensen, 2020, p.160)."

3.3 School Selection Process

3.3.1 Sampling Strategy

This research was set in Songea Municipal Council (MC), one of eight Ruvuma Regional Councils in southern Tanzania (Songea Municipal Council, 2024). In the following section, I explain how three schools were selected for this study, as well as how schools in Songea MC compared with the Tanzanian Mainland via a comparison of the secondary gross enrolment ratio and regional examination ranking. There are three national official examinations within in the secondary education system of Tanzania: two national examinations taken in the lower secondary cycle (Forms Two and Four) and one examination for the advanced secondary education (Form Six). The Form Two examination is essentially used for diagnostic purposes and continuous assessment in the O-Level secondary education. The Form IV (O-level) and Form VI (A-level) examinations mark the completion of the lower and upper secondary education cycles respectively (Kitta and Afeli, 2017). Since there is no national level examination for Form One students, this section instead demonstrates how these three schools rank in their Form One examinations within the Songea MC.

I adopted two sampling strategies for the selection of three schools: convenience sampling and snowballing sampling. A convenience sample, also known as an available-subject sample, is a type of nonprobability sample that consists of a group of elements easily accessible to a researcher. It is the most popular type of nonprobability sample strategy in social science research (Adler and Clark, 2015; Lunneborg, 2007). The benefit of the convenience sample is that it allows researchers to collect data in a relatively efficient and easy way, as the participants are selected based on their willingness and availability. Furthermore, the snowballing technique, also known as chain referral sampling, is commonly defined as a sampling method where researchers obtain the names of potential interviewees from each interviewee. If more than one referral is given per interviewee, the sample size grows like a rolling snowball (Cohen and Arieli, 2011; Kirchherr and Charles, 2018; Patton, 2015, 1990). This strategy offers significant advantages in exploratory research by enabling researchers to access populations that are challenging to reach (Naderifar et al., 2017). This is particularly advantageous for an outsider researcher like myself.

The following is a brief description of my first trip to Tanzania and the process of gaining access to three schools. It started in summer 2019 when I was volunteering in one of the community schools within the Hoja Project “School for Life” which partnered with Comrades of Children Overseas (COCO), a UK based education charity. Their aim is to provide sustainable sources of quality education to children living in poor and marginalised communities in East Africa. Upon arriving in Songea MC after a very long bus journey from Dar es Salaam, I was picked up by the headmaster of the school I was scheduled to work with (which later became the community school B in this research). I stayed in a small hostel in the downtown area, approximately 4-5 miles away from the community school. On my way to the school, the headmaster pointed out some students from private and public schools to me. While all have uniforms, only the private school provided a school bus and meals. However, students from public schools need to commute several hours with no food provided. He later said to me that the public education system is failing, stating, “one cannot expect to learn anything from it”, and the private schools are too expensive for most of the people in the area.

I arrived at the school during the school holiday, and students were not due back for another week. The only students in the school were those preparing for tests. Inside the school, there was a vegetable garden where parents and members in the community could boost crops yield and income after receiving sustainable agriculture training. The money gained could be used to enrol their children for education. Some of the food was sent to the school canteen for children daily use. Once I had settled in, the headmaster and I decided to speak with Form One students after their lunch break. When we entered the classroom, the students stood up and greeted us. They were curious yet slightly nervous about my arrival, I introduced myself and explained the purpose of my visit. After a while, most of the students became more comfortable and were eager to answer my questions. All but two of the students came from public primary school. About 95% of them (30 students were present in the classroom at that time) expressed that they liked English, wanted to learn English and believed it should be used as the MOI. One student said, “It is in our interest”. I think their attitude might have been influenced by schoolteachers who actively promoted its use in lessons.

During my 4 weeks volunteering here, I was responsible for teaching some English sessions to students. I spent most weekday mornings at the community school, teaching and learning alongside the students. One thing that surprised me was the slogan on the headmaster’s door, “No English, no service.” However, I also noticed when students came to his office to ask questions, they naturally used Swahili. This community school did very well in the national examination test in these years (top 10 in the region). I noticed their ranking system differed from the national standard (table 3-1 below), specifically requiring higher marks for a grade than the national system. The headmaster explained that they used their own system together with their weekly tests; believing that this approach can make students more likely to achieve higher grades when assessed under the national system.

Table 3-1 Grading System in Community School B

Grades	Community School system	National system
A	100-85	100-75
B	84-75	74-65
C	74-65	64-45
D	64-45	44-30
E	44-0	29-0

As a result, I became deeply intrigued by how the MOI presents itself in this community school and how students and teachers experience it. I sought permission from the headmaster to involve students in my PhD research and received a positive response. In addition, I used the snowballing technique by asking the headmaster if he knew of any private schools or public schools that might be interested in participating in my research. This approach was particularly relevant, as the majority of secondary schools in Tanzania are government managed and funded. Apart from teaching children the ability to read and write, public schools also have a dual responsibility to educate children how to be citizens of the country (Green, 2013; Victory, 2022). Also, I was keen to include public schools for better understanding what the headmaster said earlier that the “public education system is failing”. Therefore, public schools presented a compelling case for inclusion in the study. Private schools, on other hand, have been gaining popularity in developing countries across all levels of education over the years, including Tanzania. Parents are increasingly willing to send their children to fee paying private schools for better teaching quality (Day et al., 2014; Jacob Mwalongo, 2022). Considering these factors, I decided to include a private school in my research.

The selection of which private school to include was more straightforward than selecting a public school. One reason for this was that the headmaster of the community school, who was supportive of my research, had connections with staff at a private school. In addition, teachers and the headmaster at private schools were generally more open to external research compared to their counterparts in public schools. About 10 days after settling in Songea MC, the headmaster of the community school and I visited a nearby private school. The headmaster there welcomed me warmly, introduced me to the students and teachers, and during our discussions, I realised that the students had a strong positive attitude towards English, regardless of which type of primary school they attended. The headmaster in this private school, who taught Physics, mentioned that most jargon and vocabulary are only in English, and it would be unwise to translate them into Swahili for teaching. The top three reasons for selecting this specific private school were its ease of access, interested in my research and proximity to the community school.

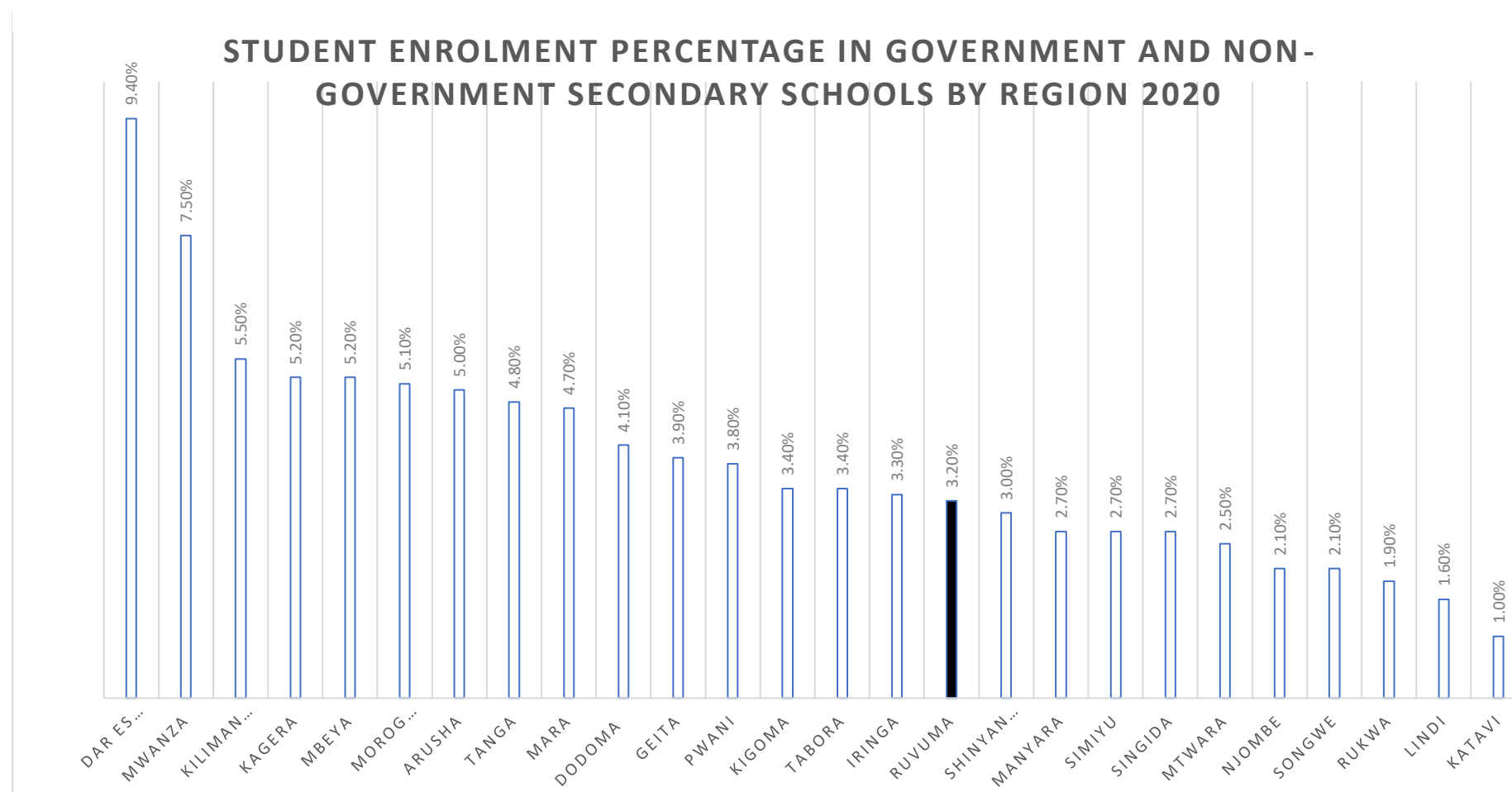
Several research (Arthur, 2001; Chimbutane, 2011; Cincotta-Segi, 2011) suggest “that the impact of language ideologies and language policies is keenly felt in public schools because of the way in which they operate as institutions linked to the nation-state and as spaces where national, official language policies are accorded legitimacy and authority” (Asker and Martin-Jones, 2013, p.353). As a result, the inclusion of a public school was a reasonable and logical decision. However, the choice of involving which public school to be in the research took some time. I was introduced to several public schools by both headmasters in the private school and community schools, who had already agreed to accommodate my research. However, I did not get a positive reply from many public schools. Some of the reasons given were “no capacity to participate,” or “not very interested”, “do not want to be recorded”. Finally, one public school referred by the private school headmaster showed interested in my research but insisted on a formal research permit from during the data collection. Although this public school was located on the outskirts of the municipality, far from the main road with bad phone signal, it was the best option available. To summarise, the connection of public schools as state agency, willingness to participate, capacity to accommodate, and time resources were the main reasons for including a public school.

The selection of the three schools depended on several factors, such as the availability of students and teachers, their willingness to participate, the distance from my location to the schools, and time resources. In the following section, I provide more details on how schools in Songea MC compared with those in Mainland Tanzania. Although the convenience and snowballing techniques can offer benefits, the disadvantages of nonprobability sampling should be noted during the research process, such as the potential for lack of representative or generalisable and might be subject to researcher bias (Lunneborg, 2007). As a result, it is crucial to provide more details on how these three schools in Songea MC placed in the national and regional levels. Based on the types of schools in this research, I refer to them as private school A, community school B and public school C throughout this study.

3.3.2 Comparing Selected Schools to Countrywide Standards

According to the 2020 Tanzanian government report on pre-primary, primary, secondary, adult and non-formal education statistics (Regional Data United Republic of Tanzania President's Office, 2020), the Dar es Salaam Region has the highest percentage (9.4%) of total enrolment compared to other regions at the regional level. Ranked 16th among 26 administrative regions in Mainland Tanzania, Ruvuma, where Songea MC situates, accounts for 3.2% of the total secondary school enrolment in both government and non-government schools (See Figure 3-2 below). The number was lower than national mean (3.84%) and median (3.4%). When disaggregating enrolment data at the districts level, Ilala MC within the Dar es Salaam Region had the highest percentage (3.2%) of total enrolment, while Songea MC ranked the 39th among all 184 districts, accounting of 0.7% of the total enrolment, and slightly higher than the national mean and median (0.5%). To conclude this section, the gross enrolment ratio (GER) in secondary schools in Songea MC was slightly higher the national average. It should be noted that these data include the entire cycle of secondary education (both 4 years lower secondary and 2 years advanced level).

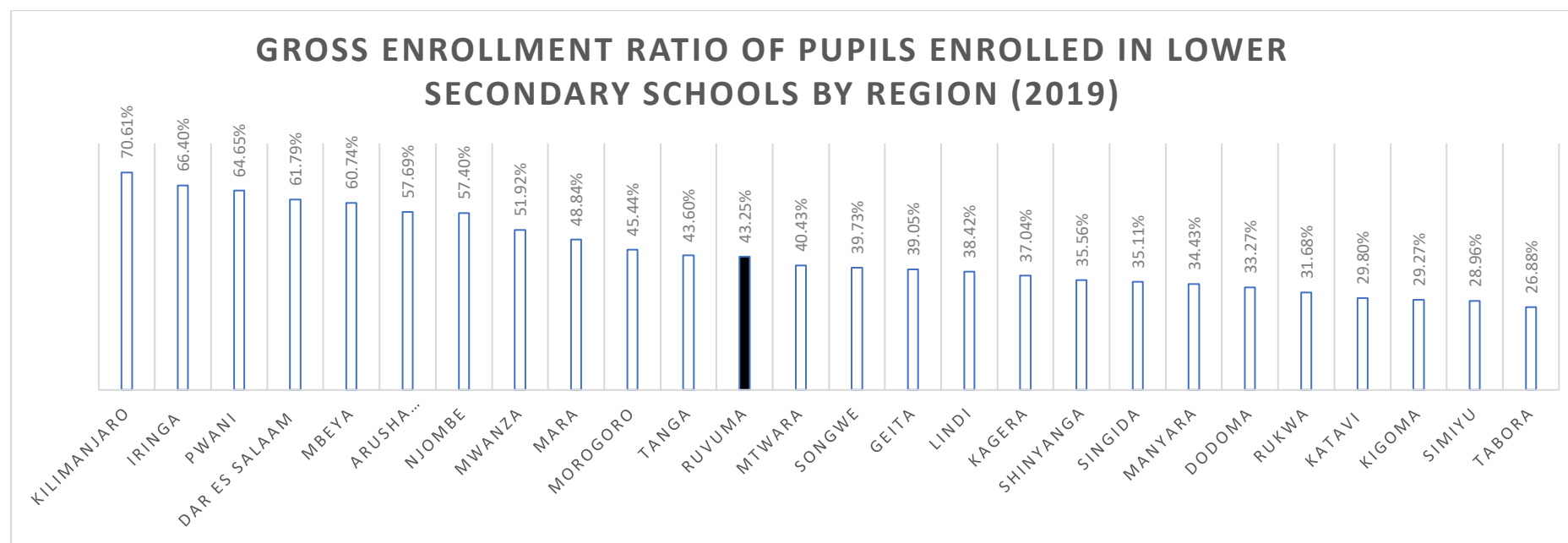
Figure 3-2 Student Enrolment Percentage in Government and non-Government Secondary schools by region 2020



Source: Regional Data United Republic of Tanzania President's Office, 2020. The graph was created by the researcher herself.

In terms of the GER at the lower secondary education, according to the Tanzania Education Sector Performance Report 2018/2019 (MoEST, 2019), Ruvuma, where Songea MC is located, ranked 12th among all 26 regions in Mainland Tanzania with a GER of 43.25%, lower than the national average of 44.31% (See Figure 3-3 below). At the district level, Songea MC ranked 53rd among all 184 district with 54.18%, which was 0.16 standard deviation higher than the national average 45.33%.

Figure 3-3 Gross Enrolment Ratio of Pupils Enrolled in Lower Secondary Schools by Region (2019)



Source: Education Sector Performance 2018/2019 Report from the Ministry of Education, Science and Technology (MoEST, 2019), the graph was created by the researcher herself.

As far as exam performance is concerned, the COCO 2020 Impact Report highlights that the community school B came third in Form Two national exams out of the 191 schools in the region. Additionally, the student with the highest grade out of the 17,190 students in the region attended community school B. Furthermore, the top 3 of 8,590 female students sitting Tanzanian Form Two Regional exams in May 2020 came from community school B (COCO, 2020). Based on the 2021 Form One student examination result (Songea Municipal Council, 2021), private school A ranked the first among all 37 schools; the community school B ranked fifth and the public school C ranked nineteenth (Table 3-2 below). In Tanzanian secondary school, the National Examination Council of Tanzania (NECTA) grading system consisted of five divisions, namely Division I, Division II, Division III, Division IV & Division Zero. Division I represented the highest level of performance, while Division zero was the lowest. This grading system considers multiple factors, such as the overall score, subject-specific scores, and the distribution of scores across different subjects.

Table 3-2 2021 Form One exams result for three schools selected in Songea MC

Ranking	Centre Location	Division Summary					Centre Performance				
	School Name	I	II	III	IV	0	Absent	Total	Clean	Percent	Centre GPA ⁹
1	Private School A	10	2	0	0	0	0	12	12	100%	2.444
5	Community School B	14	3	8	5	0	0	30	30	100%	2.985
19	Public School C	24	27	62	103	3	23	241	218	89.2%	3.805

Source: Songea Municipal Council (2021), the table was created by the research herself.

Based on the performance ranking in the Form Two National Assessment (FTNA) 2019 (Barza La Mitihani La Tanzania, 2019), Arusha Region (GPA 3.33) and Lindi Region (GPA3.88) had the best performance and lowest performance respectively with Ruvuma (GPA 3.80) ranked 22nd among 26 regions, one place improved from 2018.

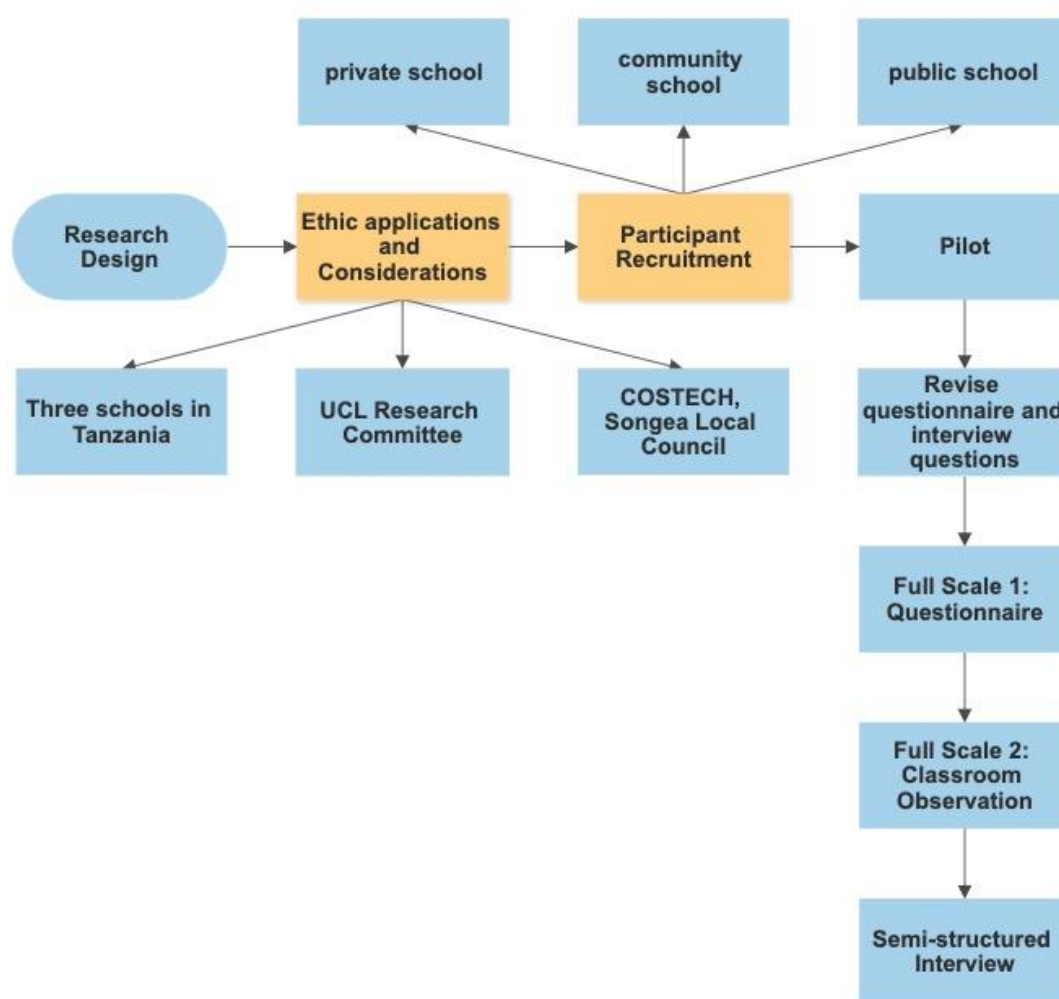
⁹ Examination Centres are grouped into two categories and ranked based on average centres Grade Point Average (avgGPA) referenced as Average GPA in the range of 1 to 5, the lower the avgGPA the higher the performance. Examination centres Average GPA Calculation: $\text{avgGPA} = (\text{divGPA} + \text{subjGPA})/2$. divGPA = Examination center average divisions GPA. subjGPA = Examination center average subjects GPA

In summary, in this section, I explained how these three schools were selected and how they were positioned compared with the Mainland in above section. The Ruvuma Region was 1.06 percentage points lower and Songea MC was 0.16 standard deviation higher than national average in terms of gross enrollment ratio. For National Form Two exams, Rumuva did not have satisfactory result, performing below the average performance (GPA 3.66). Within Songea MC, according to the Form One regional exam result, private school A had the best performance, ranking first out of 37, followed by Community School B, which ranked fifth, and Public School C, which ranked nineteenth, the lowest among the three schools.

3.4 Fieldwork Process

Figure 3-4 below illustrated the fieldwork step by step. Since the research involved a third person (Research Assistant), I decided to put forward the ethics application and consideration section before data collection and analysis. Also, prior to the reflection of ethics, I have justified the reason for involving a RA, such as the employment relation between me and him and triple subjectivity. His qualifications, how the collaboration arranged, the benefits and the challenges during the research were presented.

Figure 3-4 Fieldwork Process



Source: Created by the researcher herself, 2023

3.4.1 Covid Impact

Followed the British government's COVID restrictions and UCL Ethics guidelines and consulting with supervisors, I decided to involve a research assistant (RA) during data collection. As travelling to Tanzania created new risks for participants. The decision was approved as being correct, as Tanzania was removed from the red list on Monday, 11th October 2021, when data collection was almost completed. The Secretary of State for Transport of the UK announced on 20th September 2021 that the original traffic light measures with three different levels have been replaced by a simplified travel system from 4th October 2021. The new system had a single red list; easier arrival requirements were available for people based on their vaccination status. Specifically, fully vaccinated people arriving from the red list countries did not

need to stay in a quarantined hotel for 10 days. From the 4am on Monday 11th October 2021. Among other 46 countries, Tanzania was removed from the red list (Department for Transport and Department of Health and Social Care, 2021). Considering the UK's Foreign, Commonwealth & Development Office (FCDO) travel guidance and research timeline, it was reasonable to include the research assistant who was living in the Dar es Salaam at that time.

3.4.2 Working with a Research Assistant

The involvement of a research assistant was by no means a coping strategy for data collection, as Stavano and Deane (2019) highlighted the critical role research assistants play in qualitative research. They believed a lack of attention to assistants' contributions could lead to inaccuracies in data collection. As well as potentially misleading conclusions after using research assistants during their research in north Tanzania and Mozambique. Involving a research assistant also brings another question to his positionality, which was referred to as "triple subjectivity" by Temple and Edwards, (2002). As there were three parties involved in the research, I discussed the dynamics and implications between the two of them, referring to what happened in the actual fieldwork and previous literature. Starting with the relations between the researcher and the research assistant, followed by the research assistant and the participants.

The research assistant Mr. Hamis (approval was obtained to reveal his name), is a native Tanzanian and is currently doing his PhD at Gujarat University in India. He attended a public primary school (managed by the government) like most Tanzanian kids and started to learn English and Arabic at Standard Five (Year 5). He joined a special government secondary school for high achievers from Primary School Leaving Examination (PELE) and spent another two years for advanced secondary schools at the Ndana High School. With an undergraduate degree in English language and History from Mount Meru University and a master's degree in assessment, measurement, and evaluation at Aga Khan University. His research focused on assessment frameworks in teacher education in the fourth Industrial revolution. Alongside his academic background, he has demonstrated practical

experience from working for 1 Million Teachers, a Canadian-based education NGO, as an instructional designer and content creator, and as an ESL (English for Second Language) teacher for 7 years in both government and private education settings at secondary and primary levels. His academic credentials and relevant work experience have qualified him to be a competent research assistant for this project.

After we reached a mutual agreement to work from August to December 2021, the RA and I signed an MOU detailing our responsibilities and the payment. Molony and Hammett (2007) have explained issues regarding the payment in a detailed manner, as the relationship between the RA and the researcher is indeed a labour relation. Since this was my first time hiring a RA, I cautiously followed Molony and Hammett's (2007) suggestion to evaluate if the RA was a suitable candidate such on their language, education and related experience and manage this relationship continuously for the entire "employment" by making sure "employees enjoy fair working conditions and conduct the research activities to the required academic and ethical standard" (Stevano and Deane, 2019, p.1).

Below were several examples of mine and the RA's responsibilities. I was entirely responsible for the research design, such as drafting survey questions, classroom observation protocols and semi-structured interview questions. The RA oversaw printing questionnaires as there was no Internet/laptop available on campuses, making the traditional methods of OTL data collection used in previous research (Ball et al., 1999; Elliott & Bartlett, 2016) reliant on Internet unavailable. RA was also responsible for distributing, collecting and digitalising them into SPSS and finally sending them back to me. Additionally, the RA was tasked to ask if teachers were still available for classroom observation and if participants were happy to have follow-up one-to-one interviews. At each stage, the RA was responsible for offering explanations of what the research was about with the help of the local contact and informed me whether there was anything that should be paid more attention to through our weekly meeting. We also had training three times before the classroom observation to familiarise him with the protocol.

One advantage of using an RA was that it allowed participants to speak in Swahili instead of English during a school visit, thus creating a more comfortable and

relaxed atmosphere as an “insider”. Commenting on the dynamic between researchers and the researched in an ethnographic interview, Pack (2006) emphasised the significance of building an amiable relationship between researchers and informants. This is due to the “highly personal encounter” nature of the study because interviewees only share what they want you to know and the “quality and depth of the relationship between the two individual determines what will be said” (p.105). Although being outside can offer a fresh perspective and allow researchers to avoid some inherent and unknowing prejudice, researchers can have “multiple positions along that continuum at the same time” (Holmes, 2020, p.6). The view was echoed by Daigle, (2016), who proposed that the “line between participant and observer, insider and outsider is really more of a sliding scale” (van Wingerden, 2022). Now having an RA has been proved to be the right decision, as an interviewed teacher said when he spoke English it made him a headache. As a result, having a Swahili native speaker would make him more expressive.

3.4.3 Ethics and Positionality

There were several ethical considerations to be aware of in adopting the various research methods discussed above. This research was carried out following the principles of the British Education Research Association (BERA) Ethical Guideline For Educational Research (2018 edition), UCL research ethics guidelines and UCL Code of Conduct for Research to minimize the potential risks to participants caused by the research, such as nervous, shyness, and discomfort (Research clearance was approved by the UCL ethics committee in May 2021 and the UCL Data Protection Registration Number is Z6364106 2021 01 66). Prior to undertaking the research, verbal consent was obtained from 3 headteachers in July 2019 during my first trip to Songea, and written consent was obtained in February 2021.

Once the ethical approval was obtained from UCL, I followed the guidelines and protocols established in the Tanzanian Education System for foreign researchers. Clearance was first obtained from the Open University of Tanzania (OUT) in May 2021, as it was required to have a local partner institution before conducting any research for foreign researchers. After receiving the supporting letter from OUT, I submitted all documents, including a detailed research plan, ethical approval from UCL, consent forms from headteachers, the RA, and my CV to the Tanzania

Commission for Science and Technology (COSTECH). My application was approved in July 2021. Since one of the schools selected for this project was a public school funded and managed by the government, another clearance was sought from Songea Municipal Council (Halmashauri Ya Manispaa Ya Songea) in August 2021. The recruitment of participants in private school A and community school B and the application for research clearance through the Songea Municipal Council occurred at the same time (Research permits from all relevant organizations can be found in Appendix 1). Once all research clearance was obtained from both UCL and Tanzania authorities, I began to recruit participants in public school C for the pilot with the help of the RA in late August 2021 (see details of the pilot study in Section 3.5). All participants have been informed that the research is completely voluntary to participate in , and they can withdraw at any stage without giving reasons. All questionnaires were anonymous to protect student and teacher identities. For classroom observation, two teachers (from private A and community school B) agreed to be video recorded. The camera was placed at the back of the classroom by the RA who was not involved in any classroom activities such as group discussion, allowing the natural flow of classroom interactions without disrupting the normal routines of teachers and students. However, the teacher from public school C was uncomfortable teaching in front of a camera; thus, there is no recording for public school classroom observation. The data analysis was instead based on the RA's fieldnotes.

To mitigate the stress for students and teachers of having an unfamiliar face, the RA and I also followed a six-step protocol proposed by Oswald et al., (2014). By building a healthy rapport and mutual trust between the RA and the participants, the data collected from conversation and observation were likely to be more comprehensive, accurate, and rich. Once repeated classroom observation was completed in early October 2021, the RA began to recruit students and teachers for semi-structured interviews. Interviewees were selected from those who completed the questionnaire and checked the box "I would like to take part in a 30-minute individual interview (No. 1)." The participation was entirely voluntary. Although in Tanzania, it was tradition for the headteacher to sign off on the research consent on behalf of students. Students were given the option to opt-out if they did not want to participate. Before interview data collection, students were again informed what the project was about by the RA

and given a choice to decide whether they wanted to be audio recorded. Interview time was scheduled outside of teaching hours and in a relatively quiet place to ensure their privacy. Interviews were conducted in Swahili and translated by the research assistant into English when data collection was completed in November 2021.

3.4.4 My Positionality as a Chinese Researcher

Collaborating with a local research assistant in Tanzania has prompted me to reflect on my positionality as a Chinese researcher conducting research in a foreign country. Merriam et al. (2001) described positionality was “determined by where one stands in relation to the other” (p. 411). The topic can pose ethical concerns. For example, I was an “outsider” to the research population and inevitably had a different cultural perspective and bias (McKinley, 2018). As Malterud (2001) states, “a researcher’s background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusion” (p.483–484).

The literature on research methodology highlights that the researchers’ complete objectivity is not possible and ‘no matter how reflexive they are, they can never objectively describe something as it is’ (Holmes, 2020). How we perceive and observe things is deeply shaped by our experience and knowledge (Berger, 1991, 1967; Matsuda, 2015). This led me to wonder how to understand a foreign culture and society and conduct extensive research in a country that is not my own.

My interest in Tanzania began while doing coursework for my master’s degree. I was asked to describe an actual problem in educational planning, evaluate a project in low- or middle-income countries and assess the intervention related to this problem. After extensive desk-based research, I chose to study how the Allen & Overy Partnership, the global law firm, tackles teenage pregnancy in Tanzania. In the process, I had the chance to read literature related to Tanzanian culture and history and the relationship between Tanzania and China. After I learned the history of the

Tazara Railway, built with aid from China from 1970 to 1975, my passion extended beyond the assignment and led me to choose my research area. Bourke (2014) argued that positionality is more than identity; it includes the implication associated with identity, how participants see researchers and how participants' perceptions influence the research.

Before conducting the research, I reflect on my background and asked myself the following question: how does my positionality as a Chinese student who does not speak Swahili affect the formulation of my research design and interactions with participants? It is reasonable to categorise myself as 'pro-English' since I would not have the chance to do the research if I did not speak in English, and I benefit from knowing English. However, I experienced adapting to an English-speaking classroom when I struggled to understand an economics module in my first year as an undergraduate. That experience connected me quickly to Tanzanian students and teachers despite being told by the headmaster that I was the first Chinese person in their school. Other comments I received include being told I am more like a foreign researcher from the "modern west". Understanding this informed my ways of communicating with them; simply if my existence might make them nervous, thus, they might be reluctant to tell me the real experience. My strategy was to downgrade myself from an "expert" to a "learner". This change worked well when I visited Tanzania in July 2019; there was a rapport built between me and the teachers who agreed to be involved in my research.

Then I reflected on my methodological beliefs and how I think knowledge is generated. Inspired by interpretivism, I perceive knowledge as produced by researchers' work with the informant, although it was criticised for heavily relying on a personal point of view and values. Since involving an RA is the best choice, I became more conscious of my ownership of the research. Particularly, can I claim this is totally my own research when the data collection is done by someone else? If the research is considered "original" when I use external assistance. What if the RA did not behave the way he is expected to, leading to the quality of data not being up to the expected standard? Or what if his positionality led him to interpret the questions in a different way? More practically, what if he must return to India for his study in the middle of the data collection?

In order to address these implications associated with involving a third party and to ensure the smooth process of data collection, I took the following actions. First, there was frequent communication between me and the RA, who later told me he needed to go back to India in December 2021 (two weeks after data collection). As a result, the time between each stage of the collection was shorter, and I allowed him to take the transcripts to India and do the translation if he could not finish before leaving. Apart from being closer to participants, having an RA offered the opportunity for knowledge exchange or transfer. The Economic and Social Research Council has defined knowledge exchange as a two-way interactive communication between researchers and researcher users. Both parties can share ideas, research skills and research evidence (Bullock and Hughes, 2016). Aimed at mutually beneficially, exchanges can occur at any stage of the research, and the scope of knowledge exchange goes beyond being a storyteller, but an engaged listener with continuous reflectivity, as recommended by the LSE Knowledge Exchange Impact (KEI) Strategic Plan 2020-2025.

As a result, three semi-structured interviews were organized between the RA and myself to gain a detailed understanding of how he perceived the research questions, such as what he thinks about the current medium of instruction in Tanzanian as a top achiever. By doing this, I made the decision to involve RA as a participant instead of only a translator. In doing the interviews with students, he remained open-minded and claimed: “he learned more about how others think and adapt to the language barrier (personal communication, 31/03/2022)”.

3.5 Pilot

The pilot study took place in private school A and community school B in early August, followed by public school C in late August 2021. This delay was due to the requirement for additional research clearance. The participants in this research were recruited from the Form One cohort. Given the small number of students in private school A and community school B (20-30 students), 1 girl and one boy from those two schools were selected to participate in the survey. 6 students (3 girls and 3 boys) were selected in public school C, considering the relatively large number of Form One students there (over 100 students).

Prior to data collection, the participants received a written explanation of the project in both English and Swahili and then explained verbally by the RA (excerpts from RA's fieldwork can be found in Appendix 2). They were informed that they could withdraw from the research at any time. To protect participants' privacy and avoid disturbance to their normal study as much as possible, RA conducted the survey after school hours in an empty classroom with two students. The survey began with collecting some personal information of participants, such as age, gender, availability of clean piped water and electricity at home, etc. In the second section of the survey, participants were asked to respond using a 5-point Likert type ranging from strongly disagree to strongly agree and pick one choice only. The study ended with several open-ended survey questions that asked participants to indicate anything they wished to share.

To make sure there was no misunderstanding of the survey questions and ensure students were in a relatively relaxed atmosphere, the RA was in the same classroom with students yet kept a distance so students would not feel being watched. But they could ask for help if needed. There were four male teachers in three schools (one from a private school, one from a community school and two from a public school) were chosen to participate in the survey. A small sample was selected because of the expected difficulty in obtaining more teachers, as teachers who participated in the pilot were excluded from the full-scale data collection process.

The questionnaires were printed in both English and Swahili. However, some students from public school C said they found having English and Swahili in the same paper misleading due to inaccurate translation, which I did not think of before, and I thought it could help them to understand. The RA later checked with the entire class, and most of them agreed to have both languages could be misleading. Then I deleted the English version in the following full-scale data collection, therefore, the survey for public school C was in Swahili only. Such an issue was not raised in the other two schools by students, so we kept both languages. Teachers from all three schools were happy with the survey format.

I made a number of changes to the survey questions based on feedback from students and teachers. Such as, the term "private secondary school" sounds

unfamiliar, and students were more comfortable with the term “English medium schools.” For question 15, “when did you start learning English?” Some students answered, “when I left primary school,” “primary school,” “9 years old”. As I intended to know at what grade they started learning English, so I changed the question to “When did you start learning English? Primary? Secondary? If it is primary: which class: 1, 2, 3, 4, 5, 6 or 7?”.

The RA conducted one classroom observation in each school (English in private school A, Maths the community school B and Geography in public school C), and acted as a non-intrusive observer, carefully noting the natural flow of interactions between teachers and students. These lessons were selected for convenience purposes. Teachers’ availability and their willingness to be observed and recorded were the main eligibility criteria. The primary purpose for pilot classroom observation was to make the RA comfortable in the setting and familiarise himself with the Stallings Observation protocol. Also, the pilot was meant to find out how to minimise the influence he had on students and teachers. Such as resistance, anxiety and stress (Cockburn, 2005). There were some logistical considerations that emerged. For example, where to sit and where to put the camera. It was important to bear in mind that coding and analysis of classroom observation were conducted when the RA finished the pilot and went back to Dar es Salaam. As it was impossible to send the recording when he was in Songea MC where no stable internet is available. I did the coding independently based on the recording and fieldnotes, and we compared and discussed our preliminary findings. Most of our coding was in line with each other; however, there were some discrepancies. For example, we had different opinions about a teacher’s main activity,

Teacher was reading from his notes to introduce the new topic and was writing on the blackboard. Large group is listening with a minority students were copying.

Whether it should be coded as “Reading out Loud” or “Demonstration/Lecture”. Then we went back for the Stallings Classroom Manual for clarification (The World Bank, 2017)

“Reading out Loud” has been defined as:

The teacher or one or more students are reading aloud. They may be reading from a textbook, the blackboard, their own writing, or a handout. The teacher or student may be reading out loud while the rest of the class follows along in their own books (The World Bank, 2017, p.18).

While “Demonstration/Lecture” focused on explanation.

The teacher, radio, television or some form of media is informing, explaining or demonstrating academic content to the students. Generally, this category is used when the teacher is presenting new academic content to the students (i.e. the activity is teacher-led) – although a student or group of students making a presentation to the class would also fall into this category (The World Bank, 2017, p.19).

With a closer inspection, the subtle difference between the two was the purposes of the activity. The teacher explaining new concepts was coded as demonstration and lecture; considering our observation, we finally agreed that the teacher was reading with the purpose of introducing new academic content. Therefore, it should be coded as “demonstration/lecture.” After sorting out the differences, we did the examples attached to the Manual again for practice.

For the final stage of the pilot, participants who had done surveys before in all three schools were invited to have an informal one-to-one chat with RA. Extra care and attention were paid to students to ensure they were at ease. RA asked students, “Do you want to talk in Sawhill or in English” and “Do you understand the interview will be recorded” before data collection? Interviews with students were conducted either in an empty classroom or in a quiet space on the campus, which was decided by themselves. Interviews with teachers were carried out in their offices. Swahili was chosen as the language for conversation, and the RA was responsible for the translation.

All pilots were finished before 27th August 2021, and we started the full-scale survey across three schools in the week commencing the 30th August. One of the advantages of carrying out a pilot is to recognize some potential risks which may lead to the failure of the entire project. A successful pilot does not necessarily guarantee a successful main study; however, it can increase its likelihood by changing and editing inappropriate measuring instrument (Van Teijlingen and Hundley, 2001). It can also test the effectiveness of recruitment process and protocol, and determine what resources would be needed and examine any logistical problems that would occur (Hassan et al., 2006). The main takeaway for us from the pilot is to test the validity and consistency of the research protocol and make meaningful changes based on participant feedback. In addition, the pilot allowed me

to be aware of any practical issues such as time arrangement and internet access. Most importantly, the RA built a positive relationship with students and teachers, which was crucial for the smooth launch of the full-scale study from the end of August to November 2021.

3.6 Data Collection

3.6.1 Data Collection One: Questionnaire

Teachers and students were given individual surveys, each consisting of four sections: a brief introduction, personal information, 30 Likert-type questions and open-ended questions. For the student survey, the first several 6 questions were designed to find out how students feel when they transition from primary school to secondary school and how they think about the availability of resources in secondary schools and how they perceive their English abilities (Example: I find it is challenging to transform into secondary school from my primary school). Questions 7 to 19 were designed to figure out how students think about using Swahili as the MOI and its impact on their understanding (Example: believe I can get better academic performance if Swahili is the medium of instruction). Questions 20 to 30 were designed to explore how students think using English as MOI and the impact of using it to their learning (Example: I feel supported in English speaking classroom). Questions also include how comfortable and confident students feel when they speak in what their attitude towards using English and Swahili as MOI. Similarly, teachers were also asked to respond to 30 Likert-type questions. The questionnaire was designed to measure the following constructs: how teachers think about their English proficiency; how they think about the current resources to support student transitions; their teaching practice when using English as MOI, and how it affects the content coverage.

The last part of the survey was open-ended questions. The questionnaire asked students to complete 10 open-ended questions that asked about their opinion towards the difficulties of transitions into secondary schools (apart from languages); how they think about code mixing, switching and translation; if they find having two languages in the survey helpful, etc. The last open-ended question allowed students to add anything that was not mentioned in the survey. Similarly, there were 7 open

ended questions for teachers. They were asked to share their feelings towards switching/mixing between languages and which language they chose to answer the questions.

The survey was conducted on the 30th and 31st August 2021, starting with private school A and then in community school B. Participants in public school C had their survey one day later. In each school, the RA was responsible for providing an explanation about the project prior to the start. Participants involved in the pilot were excluded from the full-scale survey. Students were given 30 minutes to fill in all questions, and they could choose to answer questions in either English or Swahili. Like what we did in the pilot, the questionnaire was distributed by RA during the off-class time. Students answered all questions in the classroom, and teachers in their office.

3.6.2 Data Collection Two: Classroom Observation

The first round of data collection was completed by the end of August 2021. The RA then had 3 repeated classroom observation sessions, one in each school, from the 21st of September to the 1st of October 2021. I adopted repeated observation in each school by trying to observe each lesson of the same pupils and same teacher at the same time instead of the single and random observation. The repeated observation was able to reveal changes in experience and consistent and inconsistent patterns of behaviour or responses across varied contexts. And it can suggest preliminary conclusions (Mills et al., 2010). It was also logistically realistic to adjust in case something unexpected happened in the first observation.

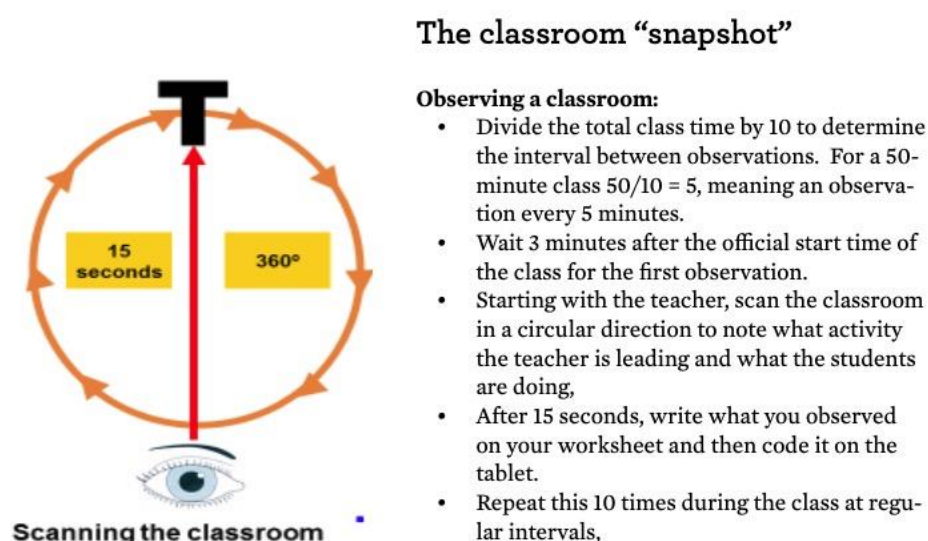
The Stallings Classroom Observation System was adapted as the observation technique. Also known as the Stallings classroom snapshot, the observation system was developed in the 1970s by Professor Jane Stallings to observe basic education classrooms in the United States. It works as a questionnaire and a protocol for timed observations that produce quantitative data regarding teacher-student interactions within the classroom (The World Bank, 2017). There are four domains within the system: teachers' use of instructional time, teachers' use of material, core

pedagogical practices and teachers' capability to keep students engaged (The World Bank, 2017).

The Stallings system has a number of attractive features: first, it can convert the qualitative activities and interactions between a teacher and students during a class into robust quantitative data. Second, it can provide solid data with 0.8 or higher inter-rater reliability after training and make it is easier and suitable to apply in developing countries. Moreover, the Stallings classroom observation system is a curriculum neutral approach, meaning it “does not try to measure the content of what is being taught – either the depth or sophistication of the curriculum content itself or the teacher’s mastery of that content (The World Bank, 2017, p.4)”. As a result, findings can be comparable among different types of schools, further justifying the Stallings Classroom System as a suitable data collection tool. Although the Stallings Classroom Observation approach was started in the US, it has successful application in thousands of classrooms in several countries in Latin America and Caribbean Region (Bruns and Luque, 2014), Asian and different African countries (Morocco, Ghana and Tunisia) (Brion and Cordeiro, 2019; Stallings et al., 2014). Finally, although there is a potential of Hawthorne Effect through this system, Bruns and Luque (2014) proposed a working assumption that the Stallings observations can record teachers’ best performance, “which is in fact useful to measure (p.104)”.

The Stallings Classroom System has three sections. The first is the classroom demographic cover sheet with information such as the school and teacher name, when the observation starts and ends, and the number of girls and boys before the after the observation. Also, one page of the cover sheet asked the RA to look at the classroom observation environment, the availability of textbooks, notebooks, blackboards, displays (paintings and pictures), and uniforms. The Stalling Observation system was designed to see how teachers use teaching time, such as the lecture, demonstration, debate, asking and answering students' questions, or discipline classroom management and the percentage of each activity. The figure below is an illustration of how to record a snapshot using the Stallings Classroom Observation System.

Figure 3-5 How to record a snapshot.



Source: User Guide: Conducting Classroom Observations. The World Bank, 2017, p.14

There were ten different observations in every class at evenly spaced intervals based on the length of the class. Therefore, for a 40 mins class, ($40/10=4$, meaning an observation every 4 minutes, we wait 3 minutes after the official start of the class for the first observation), we did 10 snapshots in this research at 3, 7, 11, 15, 19, 23, 27, 31, 35, and 39 minutes. Each observation began with a 15-second scan around the classroom, starting with the teacher, and the researcher needed to headcount students who were visibly not engaged with the teacher. For students who are not engaged with the teacher, note down what they are doing (e.g. Sleeping, staring outside of the window, etc.). The researcher was required to be present in the classroom before the official start of the class and needed to stay through the whole session.

There are 14 activities in each snapshot, which are 1) reading aloud, 2) demonstration/Lecture, 3) discussion/debate/question and answers, 4) practice and drill, 5) assignment and class work, 6) copying, 7) verbal instruction, 8) social interaction, 9) student(s) uninvolved, 10) discipline, 11) classroom management, 12) classroom management alone, 13) teacher social interaction or teacher uninvolved and 14) teacher out of the room. They are grouped into 4 categories, which are learning activities (activities 1 to 6), classroom management (activities 7, 10, 11, 12), student off task (activities 8, 9, 10) and teacher off task (activities 8, 13, 14) (The World Bank, 2017). One should be aware that activities 7(Verbal Instruction), 10

(Discipline), 11(Classroom management) and 12 (Classroom Management Alone) are classroom management activities not the instruction.

However, because classroom management is an essential part of the teaching process, these 4 activities are considered time on task. Additionally for students, activities 8 (social interaction), 9 (student uninvolved) and 10 (discipline) are considered “off task” behaviours. While for teacher activities 8 (social interaction), 13 (teacher social interaction or teacher uninvolved) and 14 (teacher out of the room) are considered “off task” behaviours for teachers. Also, Stallings et al. (2014) further divided learning activities into active instruction and passive instruction. This includes copying or seating work, and they put “giving assignment” into classroom/organising management. Furthermore Bruns, Costa and Cunha (2018) gave some examples of classroom organising management, including taking attendance, passing out papers, collecting homework. Inspired by this literature, I have put activity 5 (assignment and class work) into management if the teacher is giving assignment. And put teacher monitoring students doing classwork into learning activities (passive instruction).

However, one of the limitations of the Stallings system is that it may not capture factual errors due to its curriculum-neutral character. For example, it cannot catch factual mistakes made by teachers even if the class looks interactive. But Bruns et al., (2015) demonstrated that in both cross-sectional and value-added learning analysis, there is a consistent relationship between the teacher's practice obtained through the four dimensions and student learning gains. While it raised the concern that the Stallings system cannot or should not be expected to provide explanations for all variances in teacher effectiveness. To tackle these challenges, in addition to the three sections proposed by the Stallings system, I added another area which includes a brief description of what the teacher was doing during the snapshot. Additionally, to explore if teachers use code switching/mixing and translation and under what kind of circumstances they decide to use, at each page of the second section, I also asked the RA to take a note of which language the teacher/student use. For example:

Teacher is using Swahili language to explain the clarification he has been making on the concept of water vapor. Few students are providing choral answers (in Swahili) to reply teachers question that was used as examples. Entire class is participating

and listening to the teacher. (Snapshot 7 in Week 2 Observation in Community School B, Geography).

3.6.3 Data Collection Three: Semi-Structured Interview

The project used a convenience sample of 26 Form One students (5 each in private school A and B, 10 in public school C); and 12 teachers (3 in private school A, 5 in community school B and 4 in public school C). Eligibility criteria required individuals to have completed the survey and demonstrated a willingness to participate in the research. Participants who were involved in the pilot were excluded. The semi-structured interview took place from October to November 2021, with some follow-ups between May and July 2022. Surprisingly, the interview between the RA and the students was conducted in the teacher's office when the teacher was on the other side of the room. This may imply this is no extra room for an interview, and as a result, the RA has to ask, "Can you speak up? Please increase your voice." Interview questions can be found in Appendix 4. While in the other two schools, the RA and students are given an empty room or office to chat. Following each round of data collection, I organized an interview with the RA to reflect on and explore his understanding. Therefore, there were three interviews between us in total. Each interview has been transcribed by the RA and uploaded to the password-protected OneDrive folder. Each document has been named by a number, the school category, the position (teacher or student), and gender for analysis. For example, the document of the first female participant in the public secondary school C will be named as

1LK (student)_female. the document of the third male teacher in the private secondary school will be named as 5 St. (teacher)_male; the second female student in the community school will be named as 3 Msh (student)_female. LK, St., and Msh are the initials of the schools. All analyses were carried out using Nvivo, version 1.6.1.

3.7 Data Analysis

3.7.1 Survey Data

The RA collected all paper-based questionnaires from students and teachers and digitalised them into SPSS (28.0). Data cleaning was conducted in early September 2021. Descriptive statistics were generated to provide a simple summary of the sample, such as the number of participants in each school, gender and age. In total, 234 students took the questionnaire from all three schools. 12 (5.1%) participants from private school A, 21 (9.0%) students from community school B and 201 (85.9%) from public school C. Using valid percentage, 54.55% (126) girls and 45.45% (105) boys, 3 students did not choose. The average age: is 14.39 years old (std: 1.472 years old). 14 teachers participated in the survey: 4 teachers at private school A (all male), 5 teachers at community school B (all male) and 5 at public school C (3 male and 2 female). Frequency tables were generated by measuring participants' home resources (whether they have water, electricity, radio, tv, bike, smartphone, or laptop).

There has been a long history of how to analyse rating scale data in educational context, specifically, whether to treat it as continuous or ordinal variable as it can lead to whether it is suitable or acceptable to use parametric or non-parametric for data analysis. Allen and Seaman (2007) argued treating ordinal data as interval data can lead to misleading interpretation and conclusion if we do not examine dataset values and the goal of analysis. As well as recommending not to include parametric test “but should rely on the ordinal nature of the data. While Likert scale variables usually represent an underlying continuous measure, analysis of individual items should use parametric procedures only as a pilot analysis (Allen and Seaman, 2007). Harpe (2015) stated that the challenges faced by researchers in educational context is that the actions they want to measure is not physical like blood pressure or height but “are cognitive in nature (p.837)”, such as confidence which cannot be observed directly and have to rely on self-report. As well as assessments like “average” or “excellent” when teachers give student qualitative feedback.

Confusion still exists even though numerous instruments were developed over times. Harpe (2015) recommended “individual rating items with numerical response formats

at least five categories in length may generally be treated as continuous data” (p.842). But the suggestion can be challenged by Cohen et al., (2018) and Jamieson (2004) who argued that the distance between two responses is different. The distance between “strongly disagree” and “disagree” can be different between “strongly agree” and “agree”. In this research, Likert questions were treated as a Likert type data (ordinal) as each question can be used as stand-alone and triangulate with interview findings with no attempt to combine responses into a composite scale (Clason and Dormody, 1994). Therefore, descriptive statistics such as the frequency of participants choosing “agree” and “disagree” were performed.

Answers from open-ended questions were firstly translated from Swahili to English by the RA (if it was in Swahili) and then analysed together with an interview using thematic analysis. Closed-ended questions are relatively easier for participants to understand and can be filled in quickly. However, it might miss some important insights that cannot be quantified. The small sample size from private school A and community school B meant it was not possible to perform a multilevel model to analyse student level or school-level impact. It was not possible to investigate the association between the frequency of using code mixing/switching/translation to each school. Additionally, the responses were subjective and were therefore susceptible to recall bias. As a result, I was more cautious about drawing conclusion and more aware of validating results through semi-structured interviews and observations. One example might be the contradiction between students self-reported result (the number of books they have from one school) and findings from interviews.

3.7.2 Classroom Observation Data

Classroom observation data was analysed during November 2021 and followed the Stallings Observation protocol. The first step was to code data from private school A and community school B on my own using the video recording. Since the teacher at public school C did not want to be recorded, analysis was based on the RA’s note. As discussed before, through several practice, the RA and I have reached a consistency when we code teacher’s main activity. The frequency of using Swahili

and English was analysed in each observation. For example, we have identified that in the week one, the teacher in private school A has used English in 10 snapshots, the teacher in community school B has used Swahili in 2 snapshots.

Second, I grouped activities used by teachers into 4 categories which are, learning activities (active instruction and passive instruction), classroom management, student off task and teacher off task. I then calculated the percentage of each activity. I found 50% of class time was used in active instruction, 40% used in passive instruction and the remaining one was used in classroom management. A table indicating the availability basic infrastructure (the availability of light, desks, blackboard, charts, etc.) and type of questions (simple/conceptual question, etc.) used by teachers in each school was also generated (See details in 4). Below is an example from public school C.

No charts, teaching aids or drawings seen on the classroom walls. Could not see any textbook or printed materials in the class. The teacher has prepared notes on her notebook and few extra notebooks, a duster, and pieces of chalks. The class does not have space enough for the number of students, there is minimal amount of lighting. The public school teacher is more likely to use simple and repetitive questions when they ask questions and more examples to clarify the topic with no conceptual questions coded. Students can ask questions for clarification and raise hands, although it is a very much teacher-centred class.

3.7.3 Semi-Structured Interview Data

The qualitative data analysis was conducted from December 2021 to March 2022, and again from July to August following my additional fieldwork in June 2022. I was influenced by Braun and Clarke (2006) six steps thematic analysis framework to identify, examine and report patterns, which are:

- Step 1 Familiarizing Yourself with the Data
- Step 2 Generating Initial Codes
- Step 3 Searching for Theming
- Step 4 Reviewing Themes
- Step 5 Defining and Naming Themes
- Step 6 Producing the Report/Manuscript

It should be noted that instead of directly using the six steps thematic analysis structure which is a purely inductive approach, data from the transcripts were

analysed under the pre-set themes, codes were generated and identified after all interview transcripts being carefully read and then analysed and summarised in a systematic way guided by each theme (content coverage, instructional time, quality of instruction). Therefore, I adopted the framework and changed the step 4 and step 5 into Reviewing Codes and Defining and Naming Codes (See table 3-3 below for a working example).

Saldaña (2021, p.5) noted that “a code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data”. Also, some codes were double or triple coded to allow the maximum meaning to emerge, but the same quotation was used multiple times to justify more than one point which could minimise the trustworthiness and reliability (Elliott, 2018). This data analysis approach drew on the work done before by (Datzberger and Le Mat, 2019) in Uganda, although their data was analysed and categorised without the pre-set themes. The table 4.2 below shows a working example of the coding process.

“Counting is easy; thinking is hard work” Saldaña (2021, p.5). Counting codes is not a question usually asked by beginner qualitative researchers. However, as suggested by Harding (2018) and Elliott (2018), it is a question that should be asked even though the action has received challenges. Creswell (2017) argued that counting is contrary to qualitative research and does not guarantee significance. Harding (2018), however, explained that a code should be given careful consideration if it is mentioned by a quarter of respondents. It is worth noticing that the gist is not the number of times that the codes appear in the data but how widespread the code is throughout the dataset. But, as a result of counting, Saldaña (2021) suggested that researchers are more likely to overlook the less mentioned data. But they should by no means ignore these less mentioned codes since they could be a key to decipher analysis, although it could indicate something unimportant or irrelevant to the research. Therefore, the researcher or analyst should make the decision with caution. Even though this research aimed to explore the impact of the switch of MOI on the OTL, other external factors should not be ignored. Therefore, the code “Understanding of Content Negative (other reason)” has not been discarded even it is only mentioned twice during the interview.

Table 3-3 Worked example of thematic analysis.

Six steps thematic analysis	Examples
Step 1 Familiarising Yourself with the Data.	Below is one excerpt taken from one participant. “When I use English only students don’t understand, because they (students) need more (time) explain on the topic I teach in biology and Swahili is what they understand. So, I use all languages teaching not English.”
Step 2 Generating Initial Codes.	Codes identified in excerpts: Negative understanding more time is required need time to make sense of the content
Step 3 Searching for Theming (pre-set)	Content coverage; Instructional Time; quality of instruction.
Step 4 Reviewing Codes	Initial codes do not present connection between the negative understanding and MOI (English). Therefore, I recode the transcripts into: 1. Not enough instruction time because of the usage of coping strategies (coding mixing, code switch or translation). 2. Lack of comprehension; Students do not understand the concept Then I reduce repetitiveness of the codes and make it more concise, at the stage, the code becomes: 1. Understanding of content negative (MOI)” (When I use English only students don’t understand) 2. Low instructional time (MOI) (because they need more (time) explain on the topic I teach) 3. Code switching and mixing and translation (I use all languages teaching not English.)” “Translation” was not revealed from the excerpt above, but from other transcripts.
Step 5 Defining and Naming Codes	In this step, I finalise codes and double code to ensure there is no loss of insightful information; and rephrase the meaning of each code and link them with three pre-set themes.

	“Understanding of content negative (MOI)”, tripled coded with “Low instruction time (MOI)” and “code switching and mixing”. Low instructional time: Students/teachers mentioned they need extra time which is related to the medium of instruction. Understanding of content negative (MOI): students don’t understand because of MOI code switching and mixing. Code switching, mixing: Alternative teaching approaches are used to help students understand.
Step 6 Producing the Report/Manuscript	Writing up. Three codes were generated from this excerpts and belong to two themes (Content coverage; Instructional Time).

Source: Adapted from Kiger and Varpio (2020)

Each interview has been transcribed by the RA and uploaded to the password-protected OneDrive folder. Each document has been named according to a specific format that includes a number, the school category, the position (teacher or student), and gender for analysis purposes. For example:

- The document for the third male teacher at the private secondary school will be named 'A3 teacher male'.
- The document for the second female student at the community school will be named 'B2_student_female'.
- The document for the first female student at the public secondary school C will be named 'C1 student female'.

In total, 7 codes were generated under the theme “Content Coverage”. Which is code switching, mixing and translating; confusion about content; understanding of content mixed; understanding of content negative (MOI); understanding of content negative (other reasons); understanding of content positive (MOI) and understanding of content positive (other reasons). This guided the analysis and discussion. 3 codes generated under the theme “instructional time”, which are enough instructional time, low instructional time (MOI related) and low instructional time (other reasons). Finally, 14 codes generated under the theme “Quality of instruction” as one of the perspectives of OTL.

3.8 Summary

This section began with a discussion of positivism and interpretivism, the two major research philosophies within the social sciences. Positivism views the world as static, seeking to establish relationships between variables and to test and refine theories through sophisticated measurement tools. Interpretivism, in contrast, seeks to understand the emotions, motivations, and reasoning of individuals within specific contexts. Interpretivists are receptive to emerging knowledge throughout their research, constructing new insights alongside their subjects, recognising the multifaceted nature of life and the absence of singular truths (Bryman, 1998; Creswell, 2023; Saunders et al., 2023). Interpretivism played a crucial role throughout my research, impacting both the formulation of my research questions and my methodological approach. To start with, it directed my focus towards exploring the impact of students and teachers with English as the medium of instruction from the perspectives of student and teacher lived experiences, a question that cannot be addressed if the researcher remains detached from participants. Furthermore, interpretivism shaped the design of my study, integrating surveys, classroom observations, and semi-structured interviews to enable comprehensive triangulation and the identification of salient themes.

This research was a multi-site case study of three schools set in Songea Municipal Council, Tanzania, employing convenience and snowballing sampling techniques for school selection. The selection criteria were influenced by factors such as participant availability and willingness, as well as logistical considerations like the distance to my location and time resources. This section also situated three schools within the broader context of Tanzania Mainland by comparing their rankings in district examination and enrolment ratios. Songea Municipal Council, within the Ruvuma Region, fell slightly below the national average in Gross Enrolment Ratio and exhibited below-average results in the National Form Two exams (MoEST, 2019). Within Songea Municipal Council, private school A ranked 1st among 37 schools, followed by the community school B and the public school C, which ranked the 5th and 19th respectively (Songea Municipal Council, 2021). Furthermore, this chapter detailed the rationale and process of working with a research assistant, a decision

shaped by the operational and logistical challenges encountered during Covid-19 pandemic.

This chapter summarised three elements within the OTL framework and corresponding data collection methods to evident each element. Building on previous studies (Brock-Utne, 2007a, 2007b; Brock-Utne et al., 2019; Carnoy et al., 2015; Oketch et al., 2012; Qorro, 2006; Rubagumya, 1994, 1989), data collection for the first element, content coverage, was conducted using surveys, classroom observations and interviews. In the surveys, teachers were asked to respond using a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree," to the statement, such as: "I can cover more content in the curriculum if the medium of instruction is Swahili/a familiar language." Classroom observations were adopted to compare teaching and learning activities with the syllabi, while the interviews further explored how using English as the MOI affects teachers' ability to cover content. For instructional time and quality of instruction, a combination of surveys, classroom observations, and interviews was also employed. During classroom observation, a camera was placed at the back of the classroom next to the RA to record the session. The RA was not involved in the learning activities, allowing him to observe the natural flow of classroom interactions while minimising disruption to the normal routines of teachers and students. To collect data on various translanguaging approaches, such as code-switching, mixing, and translation, I documented instances at each snapshot (10 snapshots in total per lesson) where teachers or students switched between English and Swahili to clarify concepts or facilitate understanding. This included not only the frequency of switching but also the context in which it occurred, such as during complex explanations or peer discussions. The merits and limitations of each method were critically examined to understand how they intersect and enhance the research findings. The chapter ended with a description of the data analysis process. Descriptive statistics were applied to survey data, the Stallings Classroom Observation system to classroom observations, and Braun and Clarke's thematic framework influenced the analysis of interview data.

Chapter 4 Participant Information, School Description and Aggerated Findings from Survey and Interview

4.1 Introduction

In this chapter, I begin with a description of each school, including details on participants involved in the research, based on the sequence of data collection: survey, classroom observation and interview (section 4.2). To provide additional contextual information, I have included photographs from my field trips, offering glimpses into the schools and their surroundings. In the following sections, starting from section 4.3, I present aggregate findings from survey and interviews to answer the first research question: ‘How does Tanzania’s MOI policy affect student OTL in terms of content coverage, instructional time, and quality of instruction in secondary schools? The table below links my findings back to the OTL framework. It should be noted that classroom observation also contributes to answering the first research question. However, since classroom observation data will be presented in the next chapter, the table below does not include it as a data source.

4.2 Description of each school and details on study participants

4.2.1 Background Information of Private School A

Private school A is located near the main Songea -Iranga Road, about 2 km from the main road, making it relatively easily accessible. The school is a low- fee paying private school offering both boarding and day schooling options. The annual tuition fee is 870,000 Tanzanian Shilling (TSh) (£308.88) for boarding students and TSh 570,000 (£202.37) for day schooling students. This fee is relatively low compared with moderate fee paying private schools, which range between TSh 1.5 million (£526.51) and TSh 64.16 million (£22,540) per year. At private school A, students have the option to choose between boarding school and day school, though most parents seem to prefer the boarding option. According to school’s annual academic calendar, students return homes during the holidays in April, July and December. Parents are allowed to visit their children during weekends during term time.

The classrooms at school A are relatively well maintained and more than adequate to accommodate the student population. During the RA's visit in 2021, he observed that only two-year groups, Forms One and Three, were operational with many classrooms remained under-utilised or empty. The school has capacity for up to eight simultaneous classes. The school was temporarily closed for a period of time in 2020 due to Covid-19 but re-opened in 2021. As highlighted in Chapter 1, the private education sector in Tanzania plays an important role in accommodating the rising number of students after secondary education was made free of charge in 2015. Private school A primarily targets students in Songea catchment area who can afford the tuition fees. According to the 2021 Form One Regional General Annual Examination results, Private school A ranked 1st among 37 schools within the Songea Municipal Council (Songea Municipal Council, 2021). This demonstrates a good academic standing by school A in the municipality. However, before my trip to Tanzania in June 2022, I was informed that private school A experienced a real challenge during the rainy season. The boys' dormitory had collapsed. Therefore, the school was relocated to a nearby building in the same compound. Figure 4-1 below presents the layout of the school in 2021 before the relocation, and Figure 4-2 shows a sign on the door of the headmaster's office promoting the use of English in the school.

Figure 4-1 Layout of Private School A in 2021

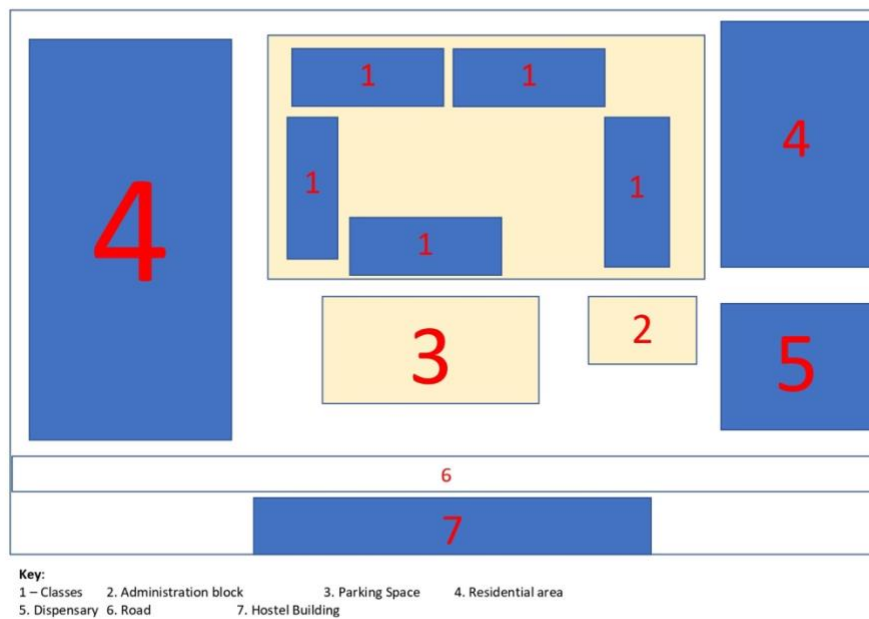


Figure 4-2 “Speak English” Sign on the Headmaster’s Door



Students at school A who participated in the survey:

As presented in the methodology chapter, convenience sampling and snowballing sampling strategies were used for participant recruitment. All survey participants (teachers and students) were selected based on their willingness and availability to participate. The surveys were completed outside of school hours to minimise disruption to regular activities. Twelve students (6 girls and 6 boys) enrolled in Form I

participated in the study, accounting for 5.1% of the total participants (234). The item response rate for the 30 questions in the survey questionnaire administered to the students was 98.89%. 27 questions had 100 % response rate, with 2 students not answering question 29, and 1 student not answering question 30¹⁰. The average age of students in private school A during the data collection was 14.64 years old (std = 2.063). The youngest participant was 13 years old, and the oldest was 20 years old and both were girls. In answering the question “Which language (English or Swahili) do you use most in the classroom?” 11 out of the 12 students (91.7%) select English, while 1 student selected Swahili. For the question, “Which language (English or Swahili) do you use most outside of the classroom?” the percentage of participants who reported using English outside of the classroom remained the same (91.7%). All 12 students reported having had three meals daily, as well as access to clean piped water and electricity at home. 5 students (47.1%) reported having a radio at home, 7 (58.3%) had a TV, 3 (25%) had a smartphone, 2 (16.7%) had a laptop, and 4 (33.3%) had a bicycle at home.

Regarding what type of primary school they attended, almost all participants (11 out of 12) went to a public primary school with only 1 student went to a private school. Additionally, 11 out of the 12 students reported that they started to learn English in primary school. Only 1 student reported that they started to learn English language in secondary school. The majority of the students reported that their mother had attained secondary education (9/12, 75%), 2 have a university degree and above, 1 student report his mother does not attend formal education. Table 4-1 below summarises the key socio-economic indicators of students in private school A.

Table 4-1 Basic SES indicators of students in private school A

	yes		no	
	Count	Row N %	Count	Row N %
Have 3 meals	12	100.0%	0	0.0%
Have electricity at home	12	100.0%	0	0.0%
Have clean water at home	12	100.0%	0	0.0%
Have radio at home or not	5	41.7%	7	58.3%
Have tv at home or not	7	58.3%	5	41.7%

¹⁰ Q29: I can understand my teacher easily when they use English in the classroom.

Q30: I believe English is essential for science, technology, the labour market and international relations.)

Have smartphone at home or not	3	25.0%	9	75.0%
Have laptop at home or not	2	16.7%	10	83.3%
Have bike at home or not	4	33.3%	8	66.7%

Teachers at school A who participated in the survey:

Four teachers (all male) completed the teacher questionnaire. They were also selected based on their interests in this research and their availability. The average teacher age at private school A was 26.50 years old (std = 2.380). 75% (3) of teachers reported having access to clean piped water, and all had electricity at home. The percentages having a radio, TV, smartphone, laptop, and bike were 25% (1), 50% (2), 100% (4), 50% (2), and 25% (1), respectively. Table 4.2 summarises teachers' basic SES indicators.

Table 4-2 Basic SES indicators of teachers in private school A

	yes		no	
	Count	Row N %	Count	Row N %
Have electricity at home	4	100.0%	0	0.0%
Have clean water at home	3	75.0%	1	25.0%
Have radio at home or not	1	25.0%	3	75.0%
Have tv at home or not	2	50.0%	2	50.0%
Have smartphone at home or not	4	100.0%	0	0.0%
Have laptop at home or not	2	50.0%	2	50.0%
Have bike at home or not	1	25.0%	3	75.0%

In terms of the qualification, two teachers had a degree, and 2 held a diploma. A degree is awarded by the university (typically requiring at least 3 years of study), while a diploma in teaching is awarded by some colleges and teacher training institutions. Although some universities offer teaching diplomas, these programme generally take less time to complete than a degree, usually lasting 2 years. Their teaching experience ranged from 1 to 4 years (m = 2.25, std = 1.258). All of them reported having learnt English for almost a decade, with the shortest duration being 9 years and the longest being 12 years (m = 10.50, std = 1.732). Their experience of teaching in English ranged from 1 to 4 years. (m = 2.25, std = 1.258). 1 teacher (25%) reported always using English in the classroom, while 3 indicated always using Swahili. The teachers reported that their use of Swahili and English outside the classroom was evenly divided. Like students, private school A teachers have the

high item response rate, with 29 out of 30 questions receiving a 100% response rate.

Classroom Observation Details and Participants

Although the classroom observation data will be presented in the next chapter, the sequence of data collection was as follows: survey, classroom observation, and interview. In this case, I provide information on the classroom observation participants before discussing those who were interviewed. The objective of classroom observation was to directly gather insights into the application of the current MOI policy across various schools. This involves examining whether and under what circumstances teachers employ translanguaging strategies such as code-switching, mixing, and translation to facilitate learning. Additionally, the observations aimed to examine the actual teaching activities, which could then be compared with the relevant syllabi to assess content coverage. It also aimed to evaluate how effectively instructional time is utilised and to assess quality of instruction as much as possible.

Two classroom observations of an English lesson were conducted by my RA on September 21st and 28th, 2021, from 9:40 am to 10:20 am. The teacher, referred to as Mr. M for anonymity, consented to participate and allowed both sessions to be recorded. In the first observation, there were 12 students (7 boys and 5 girls) in the class. By the second session, the class size increased to 13 students (8 boys and 5 girls). All students adhered to the school uniform, with girls wearing skirts and blouses, and boys were wearing trousers and shirts. The classroom was spacious and ventilated due to large windows. However, no visual aids or charts were observed on the walls, and textbooks were unavailable, so students relied on notebooks instead. The teacher, Mr. M did not have a dedicated desk within the classroom. Instead, he used a student desk to place his teaching materials. Standing in the front of the classroom, Mr. M's voice was sufficiently audible to all students, including those seated at the back, ensuring effective communication throughout the lessons.

Students at private school A who participated in the interview:

The RA conducted 5 interviews in October 2021, including 3 girls and 2 boys. Participants were selected based on their interest in participating (communicated to their teachers) and their availability for the interview. The interviews followed the survey and classroom observation. Table 4-3 below summarised student information from school A who participated in the interview. To protect participant identity, each participant was assigned an ID. For example, AS1 stands for student 1 in School A (private school); AT1 refers to teacher 1 in School A (private school); BS2 refers to student 2 at school B (community school), CS16 refers to student 16 at school C (public school).

Table 4-3 Information on students who participated in the interview.

ID	Gender	Categories of primary school	When start learning English
Date for interview: 13-15th Oct 2021			
AS1	Female	Public primary school	Class 1 at the public primary school
AS2	Male	Public primary school	Class 1-3 at the public primary school and private tutoring centre
AS3	Male	Public primary schools (changed three times)	Class 7 at the public primary school, and from brother
AS4	Female	Public primary school	Class 6 at the public primary school
AS5	Female	Public primary school	Class 1 at the public primary school

Teachers at private school A who participated in the Interview:

Two teachers (AT1 and AT2 in table below) were interviewed by the RA in October 2021. In June 2022, I had the opportunity to conduct a follow-up interview with both of them to clarify certain issues and recruit one more teacher (AT3). The newly recruited teacher expressed strong interest in my research but was unavailable for an interview when the RA visited the school in 2021. Table 4-4 below summarises information about the three teachers who participated in the interviews. The next section provides background information and participant details on Community School B.

Table 4-4 Information on teachers who participated in the interview.

ID	Date for interview	Gender	Subject	Year of Teaching	Education Status	Position at schools
AT1	15 th Oct 2021	Male	English Language	2 years	Diploma	Substitute teacher

	and 15 th June 2022		and Literature			
AT2		Male	Physics and Chemistry	2 years	Diploma	Substitute teacher
AT3	22 nd June 2022	Male	Mathematics	2 years	Degree	Substitute teacher

4.2.2 Background Information of Community School B

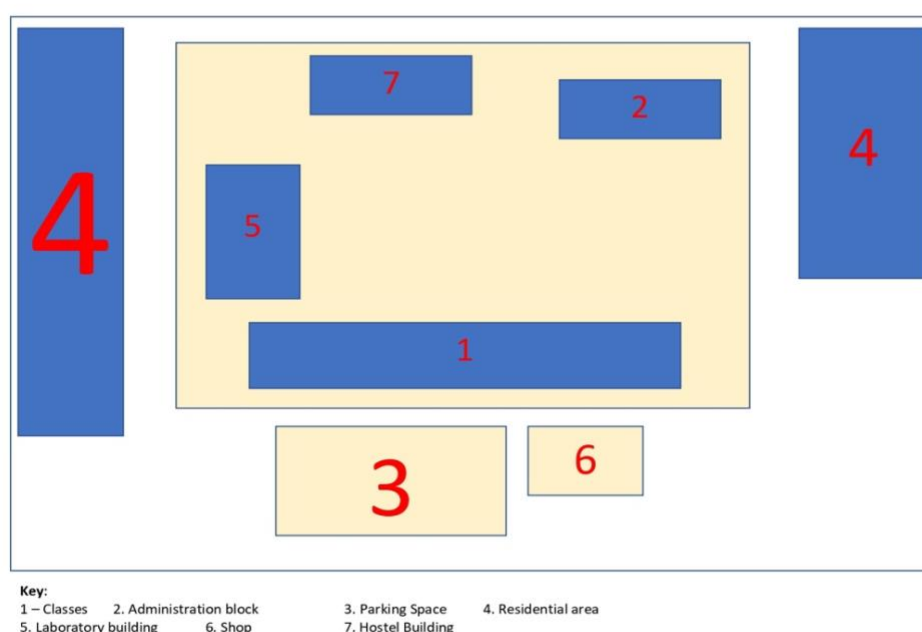
The history and development of community school B were presented in the Chapter 3. It is important to note that, as of 2022, community school B is no longer sponsored by COCO School for Life Programme. This change occurred after most of the data for this study had already been collected. The school is located about 6 km from Songea city centre. Teachers do not need to commute to the school using the common modes of transport, such as motorbikes or community transport (daladala), as they are all live nearby. The school also provides accommodation and catering for students. Residential and food cost are included in the total fees, which are 740,000 TSh per year (£229). About 60% of the students pay school fee, while the remaining receive scholarship, which are reviewed and processed by village council. Village councils play a crucial role in local governance, managing local affairs as part of the broader local government system under district councils. They are responsible for coordinating and planning in areas such as agriculture, education, forestry, industrial activities, and social welfare (Commonwealth Local Government Forum, 2017). The amount of scholarship for students varies depending on the funding the school receives from donors; however, I did not get an exact number from the headteacher. The excerpt below provides a specific example of the impression that my RA had of school B.

Community school B had infrastructures for all its students, I could see the classes, and the hostels that are not far from the classes. The school has an administration building that is also serving as staff lounge for teachers and the school matron. I could not see the school library dedicated building though I was told they had one, also they are still in construction of the science laboratory (My First Interview with RA, 03/09/2021)

The community school has access to grid electricity (the RA could see the line but could not see if it was switched on or used) and solar electricity access (the RA could see the solar panels and special solar lamps in some places). They have running water as well. The school has a parameter fence that separates it from the

community, making the classrooms invisible from outside the gate. Outside the gate, there was a seating area and parking space, designed primarily for visiting parents, though students could also use it during extracurricular activities. Turning to the classroom environment, the conditions at community school B appeared less satisfactory compared to that of private school A (during 2021), mainly due to crowding and the increased number of students in the second classroom observation (presented later in this section) and comparatively poorer lighting. Nevertheless, students were still able to read the blackboard, although the visibility was not as optimal as in Private School A.

Figure 4-3 Layout of Community School B.



Regarding the languages used by teachers, the RA's observed that some teachers were not comfortable using English in front of him, although a notice on the headmaster's door that read "No English, no service." (Figure 4-4).

Figure 4-4 “No English, No Service” Sign outside of the Headmaster Door



In the classroom, both students and teacher mixed English and Swahili; however, outside the classroom, the teachers insisted that students use English, and the RA could hear them speaking in English outside. The 2021 Regional General Annual Exam has shown that Form One in community school B ranked 5th among 37 schools in the Songea Municipal Council (Songea Municipal Council, 2021). The excerpt below provides a specific example of what RA directly observed in one of his first visits to the community school at the end of August 2021:

At first, I introduced myself in English, when entering the school, I saw the “No English no service” board. But after few minutes of conversation, I saw they (teachers) were not comfortable using English, every teacher was avoiding providing answers, so I had to switch back to Swahili. When I asked questions, every teacher was looking at the headteacher, expecting him to provide answers. Teachers were active and engaged in the conversation when I switched back to Swahili. And they were astonished to see I could speak Swahili. One of them put a joke, “we (teachers) could have headache after all these, we need some pain killers.”

There is a school motto which says: “We need quality education, equality, fraternity and sustainability”, which is used by students when greeting teachers and guests every time when they enter the class.

The brief conversation below took place between the students and the headmaster while he was introducing the RA to the class, as the RA arrived shortly after the students finished breakfast.:

Teacher: "What are we having for breakfast"

Student: "I don't know, tea, bread and..." (The student wanted to say something)

Teacher: "Tea and what? You can use Swahili".

The student answered "viazi (potatoes), mkate (bread)".

Students at community school 'B' who participated in the survey:

As with the participants in Private School A, participants in School B were selected based on their willingness and availability to participate. Twenty-one students, consisting of 12 girls (57.1%) and 9 boys (42.9%), took part in the questionnaire, accounting for 9.0 % of the total number of participants (234). The average age of students in community school B is 14.05 years old (std =0.621). The youngest participant is 13, and the oldest is 15. In response to the question, "which language (English or Swahili) do you use most in the classroom, 19 out of 20 students (95%) said they use English inside the classroom, and the remaining 1 said Swahili. 17 (81.0%) students reported using English outside the classroom, and 4 reported using Swahili. However, similar to private school A, the data should be interpreted with caution as fieldwork observations indicated that Swahili was used more frequently outside the classroom.

As shown in Table 4-5, 97.4 % (18/19) of the respondents reported having clean water and 95.2% (20/21) indicated they have access to electricity at home. It is worth noting that the student who reported not having electricity at home also lacks access to clean water. Regarding household items, 75.0% (15/20) students reported having a radio. The percentages for students having a TV, smartphone, bike, and laptop are 70.0% (14/20), 66.7% (14/21), 65.0% (13/20) and 10% (2/20) respectively. Additionally, 95.5% (20/21) of students said they have three meals, while one student reported having one meal per day. 73.7% (14/19) of students in community school B come from public primary schools, and 23.5% (5/19) went to private primary schools.

Table 4-5 Basic SES indicators of students in community school B

	yes		no	
	Count	Row N %	Count	Row N %
Have electricity at home	20	95.2%	1	4.8%
Have clean water at home	18	94.7%	1	5.3%
Have radio at home or not	15	75.0%	5	25.0%
Have tv at home or not	14	70.0%	6	30.0%
Have smartphone at home or not	14	70.0%	6	30.0%
Have laptop at home or not	2	10.0%	18	90.0%
Have bike at home or not	13	65.0%	7	35.0%

Teachers at community school B who participated in the survey:

Five male teachers (One headteacher and four substitute teachers) completed the teacher's questionnaire. The average age of 4 teachers who answered the question was 29.0 (std = 1.826). As shown in Table 4-6, all five teachers reported having electricity at home, and 80.0% (4/5) said they have access to clean water. The percentages of having a radio, TV, smartphone, laptop, and bike are 40.0 % (2/5), 80.0% (4/5), 100% (5/5), 60.0% (3/5), and 40% (2/5) respectively. In terms of qualification, 80.0% (4/5) held a degree, and one teacher had a diploma. The average year of teaching in English among participating teachers was 3.80 (std =1.095); while the average year of teaching at this school was 2.6 years (std =0.548). Additionally, 80% (4/5) of teachers reported using English inside the classroom, while 60% (3/5) reported using Swahili outside the classroom. All the teachers answered the questionnaire in English.

Table 4-6 Basic SES indicators of teachers in community school B

	yes		no	
	Count	Row N %	Count	Row N %
Have electricity at home	5	100.0%	0	0.0%
Have clean water at home	4	80.0%	1	20.0%
Have radio at home or not	2	40.0%	3	60.0%
Have tv at home or not	4	80.0%	1	20.0%
Have smartphone at home or not	5	100.0%	0	0.0%
Have laptop at home or not	3	60.0%	2	40.0%
Have bike at home or not	2	40.0%	3	60.0%

Classroom Observation Details and Participants

Two classroom observation of a Geography lesson were conducted by the RA on 21st and 28th September 2021, from 8:30 am to 9:10 am. For the purpose of anonymity, the geography teacher is referred to as Mr. S, who voluntarily participated in the research and consented for both sessions to be recorded. During the first observation, there were 20 students present (9 boys and 11 girls) in the class, and the classroom was spacious enough for the number of students. By the time of the second observation, the class size had increased to 29 students, including 9 additional girls from another school participating in the "Hoja" project. This increase led to a crowded classroom and a shortage of tables, requiring some students to share. The class limit at Community School B is 40 students; and they can accommodate students from other "Hoja" schools if the count remains under 40. If it exceeds 40, students may be sent to other schools. There are four "Hoja" schools in the area. However, based on the observation, the classroom might not be spacious enough for the original limit of 40, given that it was already crowded with 29 students. All students were observed wearing school uniforms, girls in skirts and shirts, and boys in trousers and shirts. However, no charts, drawings, textbooks, or printed materials were present on the walls or available in the classroom.

Students at community school B who participated in the interview:

Two male students and three female students were interviewed by the RA between 18th to 19th October 2021. All interviewed students began their education in public primary schools, with one student transferred to a private school in Class 3 (third year of primary school). Table 4.7 below summarises information about the five students who participated in the interviews.

Table 4-7 Student information who participated in the interview.

ID	Gender	Categories of primary school	When start learning English
Date for interview: 18-19th Oct 2021			
BS1	Male	Public then transfer to private primary school from Class 3	Class 3 at the private primary school
BS2	Male	Public primary school	Class 4 at the public primary school
BS3	Female	Public primary school	Class 3 at the public primary school
BS4	Female	Public primary school	Class 2 at the public primary school

BS5	Female	Public primary school	Class 1 at the public primary school
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Teachers at community school B who participated in the interview:

Two male teachers were interviewed by the RA in October 2021, with one of them being the headteacher. One year later, I followed up with both teachers and recruited additional three teachers (BT3, BT4 and BT5) for my research. These newly recruited teachers expressed interest in taking part after the Mr S (BT2) introduced my research to them, and they were available for interviews in June 2022.

Table 4-8 below provides a summary of information about the teachers who participated in the interviews at both times.

Table 4-8 Teacher information who participated in the interview.

ID	Date for interview	Gender	Subject	Year of Teaching	Education Status	Position at schools
BT1	19 th Oct 2021	Male	Geography and History	2 years	Degree	Substitute teacher
BT2	And 13 th June 2022	Male	History and Literature in English	6 years	Degree	Headteacher
BT3	13 th June 2022	Male	Geography and History	3 years	Degree	Substitute teacher (worked at community school B and transferred to a nearby community school also partnered with COCO, he was available when the interview was conducted)
BT4	23 rd June 2022	Male	Geography and English	1 year	Degree	Substitute teacher
BT5	13 th and 23 rd June 2022	Female	History and Kiswahili	2 years	Degree	Substitute teacher

It is important to note that that Mr S (BT2), the former headteacher who taught history and literature at community school B, has no longer worked there since 2022. However, he remains active in education sector. He now works as a social worker and collaborates with local and international NGOs, continuing support students by organising educational activities. Luckily, he is still willing to participate in the research, offering his insights from time to time and even introducing my research to some new teachers who recently joined community school B. The interviews conducted in 2021 between teachers and the RA are in Swahili and translated into English by the RA. All subsequent correspondence between teachers and me after

November 2021 to June 2022, was conducted in English. Therefore, the attribution of his quote reflects the date on which he was interviewed.

For example:

- When he was still working at the community school B: Male teacher, community school, BT2, 19/10/2021.
- After he left the school: Male teacher, former community school, BT2, 27/05/2022 or 17/06/2022.

The next section presents information and participant details for Public School C.

4.2.3 Background Information of Public School C

Most Tanzanian students attend public secondary schools after they complete primary school. According to the Basic Education Data (2022), published by President's Office, Regional Administration and Local Government Tanzania (PO-RALG), 380,780 boys and 403,571 girls are registered as Form I students in public secondary schools across Tanzania. Specifically, in the Songea Municipal Council region, where this research is based, 2,111 boys and 2,384 girls are enrolled in public secondary schools.

The choice of public school C turned out to be a highlight, as the number of survey participants (201) accommodates 4.4% of the new Form I students in the entire Songea MC and shows some fascinating characteristics. Geographically speaking, public school C is located outside of the municipal outskirts and far from the main road; it is not surrounded by a wall or a fence like Private school A and community school 'B' schools. The RA's first impression upon visiting the school was that there were many students but relatively few staff on campus. The following excerpt provides an example of his observations during his first visit at the end of August 2021:

Public school C is not like other schools I have visited so far (private school A and community school B). It has many students. we could see around and approximating the school might have approximately nearby one thousand students. Normally there is supposed to be teacher on duty who takes care of students, but in public school C, the on duty teacher has to be responsible for over 500 students)

He further explained how it may affect the research process,

They (students) were no specific order, it took more than 30 minutes to find the Form one students to fill the pilot questions (which took less than 5 minutes in other two). Because of their numbers, I had to collect in cohorts, the class is divided into 4 cohorts, and every time I start in cohort, I had to repeat instructions.

Human rights watch (2017) reported that Tanzanian secondary students also face food, classroom and desk shortages because of free education policy. This was reflected in the classroom conditions observed at Public School C during the 2021 visit. The classrooms used by Form I students were different from others in other two schools, with most of them unfinished, lacking windows or window frames and using iron sheets as window covers.

Public school C has several single-story teaching buildings, they remain overcrowded due to the large student population. RA noticed that some new buildings were under construction during his visit in 2021 August. The headteacher mentioned that they are expecting more students as the enrolment number might increase. In January 2021, they have already received 230 students for the Form one class. When I visited Songea MC in June 2022, these new buildings had been completed and were in use, funded by the government Covid Grant (see figure 4.5 and 4.6 below). It should be bear in mind that the grant is designated for public schools only; despite facing similar challenges, private school A and community school B have not received any government funding.

Public school C operates as a day school with no boarding and students needs to go back home after school. Due to a lack of furniture, students are required to bring their own chairs to school and leave them in the classroom for the duration of the academic year (see figure 4-7 and 4-8 below). Before 2015, parents were allowed to contribute to schools, but this practice was banned by the late president John Magufuli. Since then, teachers and schools are prohibited from collecting money from parents, as the schools are government-funded and managed. Because of this prohibition, staff have reported a lack of sufficient furniture, specifically chairs. As a result, they have had to ask parents to bring extra chairs from home if they have any available. In addition, the large teacher student ratio at the school might indicate the number of teachers may not increase proportionally to student enrolments. This

poses new challenges faced by many African countries when schools are made free (Oketch and Somerset, 2010).

Figure 4-5 New Classrooms were under constructions in 2021 and 2022



Figure 4-6 Newly built classroom in Public School C in 2022



Figure 4-7 Classroom of Public School C in 2021



Figure 4-8 Different Chairs in Public School C in 2021



In addition, Internet access at public school C is limited, with teachers relying on personal data plans to access the internet. Only one mobile network company has connectivity at the school. Another issue reported was that the school did not have access to electricity during the pilot study (August 2021), although the school had access to electricity by June 2022. The school has a room designated for use as a staff office; but there is no dedicated building for administration or laboratories. While the school has allocated parking space, it appears to be unused or unmaintained, in contrast to the relatively well maintained in private school A. Additionally, the football pitch is located across the road, requiring students to cross the street to return to school after playing. According to the 2021 Regional General Annual Exam has shown that Form One in public school C ranked 19th among 37 schools in the Songea Municipal Council, the lowest ranking among the three schools participated in the research (Songea Municipal Council, 2021).

The most surprising aspect of my visit to June 2022 to public school C was the presence of many new textbooks stored in the headteacher's office. The book cover displays the following statement: "Published by Tanzanian Institute of Education, this is the property of Tanzanian Government, Not for Sale". While the textbooks received by public schools are published by the Tanzania Institute Education, teachers have the autonomy to choose other individual authors or foreign publishers,

such as the Oxford University Press, if they think they have better content as long as the book has a government-approved certificate and align with the national syllabus. Although the textbooks were distributed by the government, they had not yet been given to student. One teacher explained that these books needed to be stamped before they could be borrowed by students. While I cannot guarantee when students can use these textbooks, it may just like the RA commented: “The government statistics said they have books but actually they do not.”

Students at public school C who participated in the survey:

Public school C had the highest number of participants in this research. 201 students taking part, including 90 boys (44.8%) and 108 (girls), while 3 students did not respond to the gender question. The average age was 14.4 years old (std=1.50). Over half respondents (124 students, 64.6%) reported using English in the classroom, while the remaining 68 students said they used Swahili. The percentage of students using English in the classroom at Public School C (64.6%) was much lower compared to Private School A (91.7%) and Community School B (95%). When it comes to the language students used outside of the class, 89.2% (174) students reported using Swahili, with only 10.08% (21 students), the lowest percentage reported among three schools. However, the results may still overestimate the use of English, as observational data suggested a higher prevalence of Swahili outside the classroom:

Students that I met they were all speaking in Swahili, and I could not hear even one group of students that were speaking English. The same was when I was around the teachers' office, the dominating language was Swahili, even when the teacher was speaking to the student, so it seems it is not the school culture to use English (My second interview with RA, 04/10/2021).

According to survey data (Table 4-9 below), 170 out of 190 students (89.5) reported having clean water at home, and 145 out of 195 (74.4%) had electricity. A total of 198 out of 201 students answered other questions related to basic social economic status. Of these, 82.8% (164) students reported having radio at home, 63.1% (125) said they had a TV. The percentage or having smartphones, laptops, bikes at home are 54.0% (107), 11.6% (23) and 59.6% (118) respectively. Regarding daily meals, 160 out of 195 students said they have three meals per day, 10 students said 4 meals and 25 students said they have two instead. Over half of the participants

indicated they had meat within the month. Additionally, 87.8 (166/189) students attended public primary schools, while 12.2% (23/189) attended private primary schools. What stands out was that the questionnaire was initially provided in two languages, English and Swahili. However, during the pilot phase, students expressed a preference for the Swahili version, so the English section was removed, and the final questionnaire was administered in Swahili only.

Table 4-9 Basic SES indicators of students in public school C

	yes		No	
	Count	Row N %	Count	Row N %
Have electricity at home	145	74.4%	50	25.6%
if they have clean water at home	170	89.5%	20	10.5%
Have radio at home or not	164	82.8%	34	17.2%
Have tv at home or not	125	63.1%	73	36.9%
Have smartphone at home or not	107	54.0%	91	46.0%
Have laptop at home or not	23	11.6%	175	88.4%
Have bike at home or not	118	59.6%	80	40.4%

Teachers at public school C who participated in the survey:

5 teachers (2 female and 3 male) completed the teacher questionnaire. The average age of the surveyed teachers is 31 (std=3.40). According to Table 4.10, all 5 teachers reported having electricity, radio, TV and smartphones at home. In addition, 80.0% (4/5) said they have access to clean water and laptop, while only 40% (2/5) said they have a bike. Regarding qualification, 3 teachers hold a degree with, 1 has a diploma, and 1 holds a master's degree. The average length of teaching in English for surveyed teachers was 8 years (std=2.73), and the average years they had been working at this school is 4 years (std=1.14). 80% (4/5) reported using English inside the classroom, while 60% (3/5) reported they use Swahili outside the classroom. All teachers completed the questionnaire in English.

Table 4-10 Basic SES indicators of teachers in public school C

	yes		No	
	Count	Row N %	Count	Row N %
Have electricity at home	5	100.0%	0	0.0%
Have clean water at home	4	80.0%	1	20.0%
Have radio at home or not	5	100.0%	0	0.0%
Have tv at home or not	5	100.0%	0	0.0%
Have smartphone at home or not	5	100.0%	0	0.0%
Have laptop at home or not	4	80.0%	1	20.0%
Have bike at home or not	2	40.0%	3	60.0%

Classroom Observation Details and Participants

The RA conducted two repeated classroom observations of history lessons from 9:20 am to 10:00 am on the 24th September and 1st October 2021. The teacher, referred to as Miss A, voluntarily participated in the research, but unlike teachers from previous two schools, she did not consent to having the sessions recorded, although she allowed note taking. Curious about her hesitation, the RA inquired further. Miss A expressed discomfort with being filmed, prompting RA to discuss the matter with the local host and the headmaster. This conversation revealed a broader issue, which is teachers in government-funded schools (like this one) often feel less confident in their teaching abilities compared to their counterparts in community or private schools. Consequently, they are hesitant about being observed and rarely engage and collaborate with non-government schools peer teaching or joint examinations.

During the first observation, there were 47 students present (21 boys and 26 girls) in the class, with the number decreased to 45 in the second observation (19 boys and 26 girls). There were no charts, drawing on the classroom walls, and no textbooks or printed material were available for use. Although all students had a clear view of the teacher while she instructed from the front of the classroom, the seating arrangement did not allow the teacher to easily navigate around the room and closely observe each student's work. The classroom was not spacious enough for the number of students, but additional classrooms, funded by the Covid grant, were under construction and ready to use in summer 2022.

Students at public school C who participated in the Interview:

Sixteen students, comprising a gender-balanced sample (8 boys and 8 girls), were interviewed by the RA between October 21st and 27th 2021. Four of these students attended a private primary school, whereas the majority started at public primary schools. Table 4.11 below summarises information about the 16 students who participated in the interviews.

Table 4-11 Student information who participated in the interview.

ID	Gender	Categories of primary school	When start learning English
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Date for interview: 21-27th Oct 2021			
CS1	Female	Private primary school	Class 1 at the private primary school
CS2	Male	Public primary school	Class 4 at the public primary school
CS3	Male	Public primary school	Preform One (after completion of primary school)
CS4	Male	Public primary school	Class 3 at the public primary school
CS5	Male	Public primary school	Class 3 at the public primary school
CS6	Male	Public primary school	Class 3 at the public primary school
CS7	Male	Private primary school	Class 3 at the private primary school
CS8	Female	Public primary school	Class 3 at the public primary school
CS9	Female	Private primary school	Private Kindergarten 1
CS10	Male	Public primary school	Class 3 at the public primary school
CS11	Female	Private primary school	Private Kindergarten 1
CS12	Female	Public primary school	Class 5 at the public primary school
CS13	Male	Public primary school	Class 1 at the public primary school
CS14	Female	Public primary school	Class 1 at the public primary school
CS15	Female	Public primary school	Class 1 at the public primary school
CS16	Female	Public primary school	Class 3 at the public primary school

Teachers at public school C who participated in the Interview:

Two teachers were interviewed by the RA on 28th October 2021. In June 2022, after the UK government lifted travel restrictions, I was able to travel to Tanzania myself and recruited two additional teachers for the research. These teachers had expressed interest but were not available during the data collection in October 2021. Table 4.12 below summarises information about the four teachers who participated in the interviews on both occasions.

Table 4-12 Teacher information who participated in the interview.

ID	Date for interview	Gender	Subject	Year of Teaching	Education Status	Position at schools
CT1	28 th Oct 2021	Female	English Language	7 years	Degree	substitute teacher
CT2	28 th Oct 2021	Male	Civics and History	6 years	Degree	substitute teacher
CT3	21 st June 2022	Female	Civics	5 years	Degree	substitute teacher
CT4	21 st June 2022	Male	English	3 years	Degree	substitute teacher

This section offers a detailed overview of each school, highlighting the characteristics of participating students and teachers. A total of 234 students participated in the survey: 12 (5%) from Private School A, 21 (9%) from Community School B, and 201 (86%) from Public School C. Teacher participation in the survey

was more evenly distributed, with 14 teachers completing the questionnaire: 4 (28%) from Private School A, 5 (36%) from Community School B, and 5 (36%) from Public School C. Of the 26 students interviewed, 5 were from Private School A, 5 from Community School B (19% each), and 16 from Public School C (62%). Among the 12 interviewed teachers, 5 were from Community School B (42%), 4 from Public School C (33%), and 3 from Private School A (25%). Refer to the pie charts in Appendix 5 for the percentage distribution of participants by school. The next section presents findings for the first research question, based on aggregated survey and interview data.

4.3 How MOI affects OTL through Content Coverage from aggregated survey and interviews data

In this section, I present the aggregated findings survey and interview findings relating to the first part of the first research question:

1. How does Tanzania's MOI policy affect student OTL in terms of content coverage (section 4.4) in secondary schools. Findings that address the impact of the MOI switch on instructional time and quality of instruction will be presented in section 4.5 and 4.6.

Table 4-13 below links the first element within the OTL framework (content coverage) with the corresponding data collection and analysis methods. It should be noted that classroom observation also contributed to the understanding of content coverage, however, the findings from classroom observations will be presented separately in the next chapter (Chapter 5). Findings presented in this chapter mainly focus on common OTL impacts resulting from the current MOI policy across all three schools. Chapter 6 will examine the differing OTL impacts among the schools using disaggregated survey and interview data to address the second research question.

Table 4-13 Data Collection and Analysis (content coverage)

Research Question	Data Source	Methods
1.1 The impact of MOI policy on content coverage	Fieldnotes, Student and teacher surveys; Interviews	Descriptive statistics for survey data; thematic analysis of interviews.

4.4.1 How English negatively affects Content Coverage.

The survey directly asked teacher whether they think they can cover more content in the curriculum when the MOI is Swahili or a familiar language. The following table 4-14 illustrates the range of responses received from three different schools. Of the 14 teachers who completed the questionnaire, the majority (10 out of 14) believed that more content can be covered if the MOI is in Swahili or a familiar language, while the remaining 4 held the opposite opinion.

Table 4-14 I can cover more content in the curriculum if the medium of instruction is Swahili/a familiar language.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	4	28.6	28.6	28.6
	agree	7	50.0	50.0	78.6
	strongly agree	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Table 4.15 and 4.16 below reported teachers' perspective on how their English proficiency affects ability to cover content in detail and cover complex topics. Just over a half (8 out of 14) of the participants agreed (7 agree and 1 strongly agree) with the statement. While about a third (5 teachers) disagreed and the remaining one had neutral opinion. When the participants were asked if their English proficiency sometimes prevent them from covering topic in depth, the majority (9 out of 14) agreed, with 1 strongly agreeing.

Table 4-15 My English proficiency sometimes prevent me from covering difficult topics.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	7.1	7.1	7.1
	disagree	4	28.6	28.6	35.7
	neutral	1	7.1	7.1	42.9
	agree	7	50.0	50.0	92.9
	strongly agree	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Table 4-16 My English proficiency sometimes prevent me from covering topics in depth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	7.1	7.1	7.1
	disagree	3	21.4	21.4	28.6
	neutral	1	7.1	7.1	35.7
	agree	8	57.1	57.1	92.9
	strongly agree	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Above 3 figures demonstrated the majority of teachers who answered the questions believe more content can be covered when MOI is in Swahili or a familiar language. Additionally, more than half of the teachers agreed that their English proficiency sometimes prevent them from difficult topics and covering topics in depth. The next section presents detailed findings on how students feel about being in an English-language environment when they first started secondary school.

A common view among interviewees was that students could not understand and felt confused when teachers communicated in English. During the interview, three students from community school B reported that:

“When someone is using English in conversation or teaching, I will just understand the first part and a last part, the whole middle part will leave me in confusion.”
(Female student, community school, BS4, 18/10/2021).

I remember the first time I arrived at night, when I woke up in the morning I came to school from hostel. I was told that all the services are provided in English language, and there was a signpost at every door “No English, no service”, I decided to ask my fellow classmates, and they told me if I speak other language, I will not receive any service from the teachers. I was surprised, and on the same day I needed to borrow a book and didn’t know how to say it. I asked a brother from senior class, and he offered to teach me every evening after classes and that helped much on my side. I was using Swahili in asking others on various issues, English I used it to communicate with teachers and in few instances, I used English. (Female student, community school, BS3, 18/10/2021).

Yes, challenges are many(in secondary school). The first one being the language and second environment. In primary school I was using Swahili, but here there is a total change in language policy and English is used everywhere. The school I attended in primary school we were using Swahili as a medium of instruction. I had to accept the situation and start learning slowly the language. I started using it in communication, and I had few books. Also, I used a dictionary to refer to the vocabularies that I did not understand or even ask the teacher for assistance (Male student, BS2, community school, 18/10/2021).

Confusion about the content was not uncommon among students at community school B, and their counterparts at other two schools also shared similar experiences. Students not only expressed difficulties in understanding the content, but also highlighted the negative impacts it had on their comprehension and feelings of disappointment feelings it caused.

“Yes, it (transition into secondary school) was hard for me when a teacher was using English in teaching (Female student, AS1, 13/20/2021).”

"Yes, very much. I was used to Swahili while in primary school and secondary it was all English that was a challenge to me...When a student is joining in form one (first year of secondary school), teachers must translate English language used with Swahili that is easier understood by the students. It was challenging, the first day I arrived I entered the class I was assigned to. The teacher came to class and told us that, "now you're in form one and you are supposed to speak English as you know this is a private school" (Male student, AS2, 14/20/2021)."

"I felt bad because I was not understanding anything. My friend was teaching me, and I understood how to use it after that." (Male student, private school, AS3, 14/20/2021) "

I cannot understand when a teacher uses English for teaching. (Male student, private school, AS4, 12/20/2021). "

At my arrival at the school, I found the policy that without speaking English you'll have no service. At times, you must stay quite because you don't know what to speak to ask for a certain service. (Female student, community school B, BS3, 18/10/2021).

"I did not feel good, my seniors in form 3 and form 2 (2nd and 3rd year of secondary school, there are 4 years in lower secondary in total) were speaking English language and I envied them and wish I could use the language like them. (Male student, CS13, public school, 26/10/2021) "

The difficulty (teacher use English as MOI) was not knowing the meaning of some words I came across with (Female student, CS14, 27/10/2021). "

Yes, when I started to use English hardship was when I read books. I was reading the whole book and the understand only one page from the whole book (Male student, community school, BS2, 18/10/2021).

The RA noticed a similar situation as well. Commenting on students' English level, he reported that:

They (students) can use English in few instances, but you can see how they struggle to make conversation, in contrast to when using Swahili. In class with students, I have to use both languages, I introduced myself in English and ask them how they would like me to speak to them. They said its better if I use both, so I used Swahili and English in explaining what I will be doing for the next few weeks and what I am expecting from them (First Interview with RA, 03/09/2021).

Student confusion was also obvious to teachers, often it can be seen through students' body language. Several teachers mentioned during the interview that:

Most students do not understand the language because they lack good foundation of English from primary schools....I could see them not managing well and needed to change to what could help them (mixing language) as a teacher. I saw some are just staring at me, not understand when asking questions and some can

understand but failing to reply using English language. So, a student can stand up and ask to answer the question in Swahili and telling them to answer in English you got no replies. (Male teacher, Private school, AT1, 15/10/2021)

Their level of language is still low, they had not background in English language, they don't have enough resources to make them learn the language, they have few books some don't even have dictionaries that they can use. What I do is using simple language while teaching and when the point is very important, I use Swahili. Their body language shows whether they understand or not and hence I can change the language. (Male teacher, public school, CT2, 28/10/2021)

The survey data further supported the idea that teachers were aware of students' academic difficulties and their concerns about students' inability to keep up when English is used as the medium of instruction. According to figures 4-17 and 4-18, a significant 78.5% (11 out of 14) of the responding teachers recognised that students struggled to follow their English instruction in the classroom and felt nervous about responding to questions in English. Moreover, the majority of teachers (9 out of 14) expressed dissatisfaction with the level of English language proficiency, as detailed in figure 4-19.

Table 4-17 I noticed students are struggled to follow me when I speak English in the classroom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	14.3	14.3	14.3
	neutral	1	7.1	7.1	21.4
	Agree	6	42.9	42.9	64.3
	strongly agree	5	35.7	35.7	100.0
	Total	14	100.0	100.0	

Table 4-18 Students are nervous when they answer questions in English.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	14.3	14.3	14.3
	neutral	1	7.1	7.1	21.4
	Agree	8	57.1	57.1	78.6
	strongly agree	3	21.4	21.4	100.0
	Total	14	100.0	100.0	

Table 4-19 I am satisfied with my students' English proficiency.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	5	35.7	35.7	35.7
	disagree	4	28.6	28.6	64.3
	neutral	3	21.4	21.4	85.7
	Agree	1	7.1	7.1	92.9
	strongly agree	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

The survey data, however, revealed a set of contrasting responses from the students. Out of 230 students, 157 students (68.3%) thought their level of English is enough to start the secondary school when English is used as MOI, while approximately 1 in 4 (25.2%) disagreed (Table 4-20). Just more than half students (51.9%) agreed that they can understand teacher easily when they use English in the classroom (Table 4-21). Among the 227 students who responded to the question about their confidence in English-speaking classrooms, approximately 74.6% expressed confidence, while 15.9% did not (Table 4-22). Similarly, 71.4% of students reported feeling supported in English-speaking environments (Table 4-23). It can also be seen that the majority of students (83.7%) feel comfortable to ask teachers for clarification if they have questions in English (Table 4-24). Surprisingly, the level of student confidence and the sense of support in Swahili-speaking classrooms are lower than anticipated, with just over half (54.1%) of the students feeling confident and supported (Table 4-25 and 4.26).

Table 4-20 I think my level of English is enough to start the secondary school where subjects are taught in English.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	15	6.1	6.5	6.5
	disagree	43	17.6	18.7	25.2
	neutral	15	6.1	6.5	31.7
	agree	143	58.6	62.2	93.9
	strongly agree	14	5.7	6.1	100.0
	Total	230	94.3	100.0	
Missing	System	14	5.7		
Total		244	100.0		

Table 4-21 I can understand my teacher easily when they use English in the classroom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	4.9	5.6	5.6
	disagree	79	32.4	36.6	42.1
	neutral	13	5.3	6.0	48.1
	agree	98	40.2	45.4	93.5
	strongly agree	14	5.7	6.5	100.0
	Total	216	88.5	100.0	
Missing	System	28	11.5		
Total		244	100.0		

Table 4-22 I feel confident in English speaking classroom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	9	3.7	4.0	4.0
	disagree	27	11.1	11.9	15.9

	neutral	9	3.7	4.0	19.8
	agree	166	68.0	73.1	93.0
	strongly agree	16	6.6	7.0	100.0
	Total	227	93.0	100.0	
Missing	System	17	7.0		
Total		244	100.0		

Table 4-23 I feel supported in English speaking classroom.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	3.3	3.5	3.5
	disagree	49	20.1	21.5	25.0
	neutral	8	3.3	3.5	28.5
	agree	141	57.8	61.8	90.4
	strongly agree	22	9.0	9.6	100.0
	Total	228	93.4	100.0	
Missing	System	16	6.6		
Total		244	100.0		

Table 4-24 I feel comfortable to ask teachers for clarification if I have questions in English.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	8	3.3	3.6	3.6
	disagree	21	8.6	9.5	13.1
	neutral	7	2.9	3.2	16.3
	agree	163	66.8	73.8	90.0
	strongly agree	22	9.0	10.0	100.0
	Total	221	90.6	100.0	
Missing	System	23	9.4		
Total		244	100.0		

Table 4-25 I feel confident in Swahili speaking classrooms.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	11	4.5	4.8	4.8
	disagree	79	32.4	34.6	39.5
	neutral	14	5.7	6.1	45.6
	agree	114	46.7	50.0	95.6
	strongly agree	10	4.1	4.4	100.0
	Total	228	93.4	100.0	
Missing	System	16	6.6		
Total		244	100.0		

Table 4-26 I feel supported in Swahili speaking classrooms.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	12	4.9	5.3	5.3
	disagree	89	36.5	39.2	44.5
	neutral	10	4.1	4.4	48.9
	agree	107	43.9	47.1	96.0
	strongly agree	9	3.7	4.0	100.0
	Total	227	93.0	100.0	

Missing	System	17	7.0
Total		244	100.0

The previous figures and quotes provided an interesting picture among students and teachers in English-speaking classrooms across the three schools. While there may have been some level of confidence or support in these environments, the issues of confusion and difficulty in comprehending the content are undeniable. In the following section, I will present findings on how teachers react upon realising that students are struggling with the content and explore the students' perspectives on the translanguageing strategies their teachers employ.

4.4.2 Time Adjustments Needed for Students: The Role of Code-Switching, Mixing, and Translation in Enhancing Content Comprehension

The following quotes demonstrated another two important findings: students took time to adjust themselves to the English environment, and code switching, mixing and translation as translanguageing strategies can help this process. As one interviewee put it:

"At first, I was not comfortable with environment as others could use English Language and I was not able to, but now it's normal because I can use the basic language for conversation and learning." (Female student, public school, CS12, 26/10/2021).

"It was hard, I had to forget all that I have been before and getting adapted to new environment and now I know. It was not a good feeling, because when I enter the class, everyone was using English, and teachers were using English, I had to try hard to listen. Good thing teachers knew our level and were using both languages in teaching to make sure we understand." (Male student, public school, CS6, 22/10/2021).

I can't understand the teacher when using English in whole session, but I will understand when taught with some Swahili translation. With Swahili translation I understand and even when asked to explain the same thing the next day I can remember it and even use it for my exams. (Female student, public school, CS15, 27/10/2021).

"It was hard, and I did not feel okay, it was all new to me things like solar system that I have no idea of them. The first day, I found the teacher is teaching "the concept of geography", starting with the sun and its meaning, second day he moved to the branches of geography, I was confused because everything was new. (Male student, public school, CS7, 22/10/2021)".

Student progress was also noticed by teachers, although to a limited extent:

Their (students) level is average, and they are progressing from how they came. (Male teacher, AT2, 15/10/2021).

They (Students) are at average level and use to my teaching... They are still learning, but in consideration to the initial stage they have developed much (Male teacher, BT1, 19/10/2021).

I can rate them as intermediate from the time they have arrived here, they are no longer beginners although not far from there. (Female teacher, CT1, 28/10/2021).

The survey results corroborated the insights gained from the interviews. More than half (56%) students believed the pressure of using English to learn other subjects with time, while about 37.3% students disagree.

Table 4-27 I believe the pressure of using English to learn other subjects decreases with time.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	10	4.1	4.4	4.4
	disagree	74	30.3	32.9	37.3
	neutral	15	6.1	6.7	44.0
	agree	111	45.5	49.3	93.3
	strongly agree	15	6.1	6.7	100.0
	Total	225	92.2	100.0	
Missing	System	19	7.8		
Total		244	100.0		

Another recurrent theme in the interviews demonstrated how the pressure decreases among these three schools. When students cannot understand what was being taught, and therefore required teachers to use code-switching, mixing and translation to help them to understand. For example, some interviewees said:

"Sometimes you find words that you are not familiar with, I ask a teacher for explanation in Swahili to clarify the word. (Male student, private school, AS4, 14/10/2021)"

"I understand only when the teacher uses both languages to teach. (Male student, private school, AS3, 13/10/2021)"

"I understand well (when teacher use English), however a teacher has to some Swahili words for me to understand. (Male student, private school, AS2, 13/10/2021)"

Not only did students think code mixing/switching/translation were essential for clarification and explanation, one student in the community school B also proposed the switch should occur in both writing and speaking.

"Teachers must use both languages, like when using English has to provide a direct translation. When using only English, the student will not understand...When a teacher is using English only, I can only understand a small part of the lesson. But when a teacher is using English in writing and explain in

Swahili I can understand... I would suggest writing the sentence in English as written from the book and explain the meaning of the sentence in Swahili". (Female student, community school, BS5, 19/10/2021)

Some students public school C also shared the similar feelings.

"Teachers to teach using both languages, to teach in English and translate it in Swahili so that we can understand...When using English, I don't understand, I understand when both are used in the teaching". (Male student, public school, CS1, 21/10/2021)

"To some extent I understand, nearly 60% of the times when English is used but when using mixed, I fully understand". (Female student, public school, CS5, 22/10/2021)

"To assist the learner in both languages and translate by highlighting the differences the student doesn't know...If a teacher uses only English I won't understand much, but when a code mixing (English and Swahili) is used I understand better". (Female student, public school, CS8, 22/10/2021)

Outside the classroom they are using Swahili, however students are encouraged to use English whenever they are in school compounds. In class, they are using a mixture of both Swahili and English. One teacher (from private school A) noticed a student is speaking in Swahili in the school compound and he asked the student "Can you speak in English?" Students have to try to speak in English at first, when they cannot express it very well, they are allowed to use Swahili to clarify. (First Interview with RA, 30/09/2021).

In addition to interviews findings, students who participated in the questionnaire also expressed their opinions on using English as MOI and their attitude on code switching, mixing and translation in the open-ended questions.

Some wrote "No, we cannot understand the teacher, he must code mix for better understanding" and "We could use Swahili more, but policy doesn't allow" (Private school, 30/08/2021).

"It (using English) needs more attention to think and answer questions" (Public school, 31/08/2021).

"I like being taught in English, but teachers should use both so that we understand". (Community school, 30/08/2021).

Similar findings emerged from teacher open ended questionnaire and interviews. Providing comments from both teachers and students can offer more insightful information regarding how the switch of MOI affects both parties in the classroom.

To be honest the best options are two: first is to speak the same thing in other words particularly simple than the previous one. If this does not work, then it is to

code mix using Swahili language which is very clear to most of them. Although the second option is not such professional since this does not open a chance for them to learn new vocabulary. (Male teacher, community school, BT2, 19/10/2021).

The first one I use is code mixing, it is a strategy that I use to catch attention of learners. When I see I have taught them, and the participation is decreasing at some level, or they are not seeming to understand. However, I am not using much the code mixing, not sure it is very much professional, and students might think we do not know how to teach, does not look good in inspectors' eyes. I use the English language but change the words into simpler one or explain the same with different words or provide a different relevant case/example/scenario. Students need to overcome difficulties caused by the transition, using Swahili is easy, but they will lose more in the future(exams, jobs). (Male teacher, community school, BT1, 19/10/2021).

I try to use English and use translation language when I identify that students cannot catch me well on what I taught (Teacher open ended, public school, 31/08/2021).

I translate to Swahili, all students understand and can respond and become active when using Swahili (teachers open ended, private school, 30/08/2021).

Yes, I switch to Swahili when student don't understand. Student don't have good English to understand all I teach (Teacher open ended, public school, 31/08/2021).

Yes, I use Swahili when student don't understand what I teach in session and provide further explanation on the topic. (Teacher open ended, 31/08/2021).

I switch when students do not understand what I teach that all can have understanding of teaching I am doing in class. (Teacher open ended, 31/08/2021). I use Swahili in all explanation, because students understand it more (teachers open ended, private school, 30/08/2021).

I use mix English and Swahili, so students understand better. Students don't understand if not using Swahili. (Teacher open ended, 31/08/2021).

For subjects (Physics, Chemistry, Maths)I teach, (English) is not good language, because I have to write and explain every word I am teaching and every example. E.g. when I teach math concept without using Swahili students will not understand (teachers open ended, 30/08/2021).

Taken together, the quotations above clearly illustrate, first, that students require time gradually adjust to an English-speaking environment. Additionally, translanguaging strategies such as code-switching/mixing and translation, which emerged from all interview transcripts, confirmed the existence of this phenomenon. It is essential for teachers to bridge these gaps and help students understand the

content. Furthermore, it appears from the evidence presented that teachers tended to talk about what they do in a lesson rather than what the students do.

Section 4.4 used survey and interview data to address the first part of the first research question, examining how Tanzania's MOI policy impacts student Opportunities to Learn in terms of content coverage. A significant portion of teachers among 14 teachers surveyed, 10 agree, three of whom strongly agreed, that more curriculum content could be covered if the MOI were Swahili or a familiar language. Additionally, more than half (57.1% and 64.2%) believed that their proficiency in English hinders their ability to cover complex topics and topics depth. In Section 4.4.2, I then examined student reactions to English as the MOI, revealing prevalent confusion, frustration, and mixed levels of comprehension. The next section present findings the second part of the first research question, exploring how affect in terms of instructional time.

4.4 How MOI Affects Opportunity to Learn via Instructional Time

Having presented how the change in MOI from Swahili to English affects the first element of OTL: content coverage, this section now addresses second part of the first research question: how the MOI switch affects instructional time. The findings are based on a combination of survey response, interview quotes and fieldwork notes. Table 4-28 below illustrates how the second element within the OTL framework (instructional time) I slinked to the corresponding data collection and analysis methods. Classroom observation will be presented in the next chapter. The findings are guided by the three themes that emerged (enough instructional time; low instructional time (MOI related) and low instructional time (other reasons).

Table 4-28 Data Collection and Analysis (Instructional Time)

Research Question	Data Source	Methods
1.2 The impact of MOI policy on instructional time.	Fieldnotes; Student and teacher surveys; Interviews	Descriptive statistics for survey data; Thematic analysis of interviews.

4.5.1 Low Instructional Time (MOI)

The discussion on instructional time is linked to content coverage, as presented in the previous section. Data from survey and interviews show that although code

switching, mixing and translation can help students understand content, these strategies have an impact on instructional time. There was also explicit expression from teachers of using both languages requires additional classroom time. In the survey, I directly asked teachers whether they need to spend extra time in the classroom, such as using strategies like code-switching, code-mixing, and translation, to effectively convey their information. The majority of respondents (11 out of 14 teachers) indicated that additional time is indeed necessary. Only a small portion of participants held the opposite view (Table 4-29).

Table 4-29 I need to spend extra time in the classroom (such as use code switch, code mixing and translation) in order to get my information across

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	1	7.1	7.1	7.1
	disagree	2	14.3	14.3	21.4
	agree	6	42.9	42.9	64.3
	strongly agree	5	35.7	35.7	100.0
	Total	14	100.0	100.0	

The semi-structured interviews provided further substantiation and enhanced my understanding of the survey findings. A common view amongst interviewees was that many teachers believe that using code-switching takes more classroom time. As some interviewees said:

We always code switch though it affects so much since when we translate on Swahili as our national language, we find our students understand well but when it comes to examination is a big problem since they supposed to answer by only English and they don't have enough vocabularies to use. But we teach only by English we always leave them without understanding. (Male teacher, community school, BT3, 15/06/2022)

Yes, I am translating to students. For that, I use more time in one topic, because I have to first teach in English and then repeat by translating every concept in Swahili.

"The process of code switching consumes more time than using one language. Since as the teacher you should have to make connection of the concept you are presenting in two languages at once and make the students get what you are presenting. But also, there are some terminologies which cannot be simply explained in another language rather English language so you must find another alternative of explaining them (Male teacher, community school, BT2, 19/10/2021).

Yes of course I need more time, it (the policy) needs us to teach in English then we have to translate back as what I was teaching (Teachers Open ended questions, 31/08/2021).

This finding was echoed by another teacher:

Yes, they (students) will not understand Geography if I am not translating when I teach, I need more time to make sure they understand (Teachers open ended, public school, 31/08/2021)

These following quotations provided further evidence consistent with the initial finding.

Yes, it (code switching) affects (instructional time) because using English alone the First year students cannot get what you're teaching. (Female teacher, CT1, 28/10/2021).

Yes, it (code switching/mixing and translation) affect(s) my teaching time, I need more time to cover everything in the syllabus. It spend(s) a time of finding the meaning from teaching language to tongue language instead of using that time to teach a content. Some vocabulary is difficult to translate especially from science subject, so it will reach a time start finding the meaning of one vocabulary in dictionary instead of using that time to teach the general content. (He teaches Chemistry and Physics). (Teachers open ended, community school, 31/08/2021)

*Yes(I need more time), I am translating to students. For that, I use more time in one topic, because I have to first teach in English and then repeat by translating every concept in Swahili (Teachers open ended, private school, 30/08/2021)
Yes of course I need more time, it (the policy) needs us to teach in English then we have to translate back as what I was teaching (Teachers open ended, public school, 31/08/2021)*

First, most teachers don't reach the planned goals timely with the students we had, the students don't have basic language skills. (Female teacher, CT1, 28/10/2021).

Individual ability of a learner is the only problem can affect my teaching time, some of them are slow learners while others are fast learners. The slow learners cannot understand on time compared to fast learners, so I need to explain in Swahili. I normally group them to the group of fast learners to help them keep on guiding them in the learning process (Male teacher, AT3, 22/06/2022).

Most students do not understand the language because they lack good foundation of English from primary schools. For instance, when you were here, I taught in simply English but only 2 or 3 students understood the lesson and I had to re-teach the content that I taught in the two days you were here. When I entered class and wrote a new topic the students demanded to be retaught the previous lesson and translate what I was teaching. (Male teacher, Private school, AT1, 15/10/2021)

The well-written response above was from an English and Literature teacher (AT1); he acknowledged that he needed more time to teach, and he also pointed out that the bottom-line reason he believes was due to students' poor English skills.

The additional quotations presented below support the initial response that more time is required due to students' lack of understanding. However, teachers' opinions varied regarding the suitability of the curriculum. As one participant commented:

Yah, I also need more time because you can't measure whether the students have understood or not in 40 minutes. I think because of their level of understanding since there are only few things in syllabus but because of the language you may find that you consume a lot of time dealing with one thing. Nowadays private schools do register students only to increase the number but not observing quality of students (Male teacher, AT2, 15/06/2022).

It's easy to cover everything in syllabus by code mixing but also by using extra time such as remedials etc. Remedials means the time after normal school timetable. It's for Form four and two whereby teachers are paid. For Form I, we have debate clubs and subject clubs. (Male teacher, Private school, AT1, 15/06/2022).

On the other hand, different opinions emerged. Another interviewee, when asked “do you think code switching, mixing, translation will affect your teaching time?”, he said:

Yes, of course, we don't have enough time in class, and time is also another problem you know our syllabus is not fit with time you can find a teacher is having so many things in the same topics, but we cannot finish everything, so we have to use evening time. (Male teacher, BT2, 19/10/2021)

Apart from students' insufficient English level, interviews revealed several other possible explanations that teachers believe contribute to the additional time needed for using translanguaging strategies. For instance, teachers highlighted the challenges of terminology translation, especially in science subjects. When discussing these terminology issues, some participants said,

No(I cannot cover everything in 40 minutes). It is not enough for subjects like chemistry and Mathematics. (Male teacher, CT4, 21/06/2022).

I learn these concepts (chemistry and physics) in English, easier for me to just use and teach them. Sometimes I need to find the right (Swahili) word. (Male teacher, AT2, 15/10/2021)

Example most of biology word are Latin word so to make translation it is so difficult, such as holozoic, commensalism, antigen, rhesus. I need more time to find the correct word that they can understand. (Teachers open ended, community school, 31/08/2021)

There are some Mathematic vocabularies difficult to translated into Swahili. Need more time to find the correct word, alternative explanation so our students can understand. (Teacher open ended, private school, 30/08/2021).

(It is) Hard to find the accurate (Swahili) word to explain some science concepts, can use English because it is there. (Teachers open ended, public school, 30/08/2021)

The above quotations were from the teachers' perspective, but it was also important to consider students' view on instructional time. The majority of students agreed that more instructional time is required for better understanding. As some students put it:

Yes, I need more time.

Yes, extra time is needed.

Yes, so I can get to understand better.

Yes, so we could understand better.

Yes, so that we can get deep understanding (student open ended, private school A, 30/08/2021)

Below are some examples from community school B during interviews and questionnaires.

When someone is using English in conversation or teaching, I will just understand the first part and a last part, the whole middle part will leave me in confusion. I will need to take time off and think deeply the meaning of whatever was being said (Female student, BS5, 19/10/2021).

Yes, at times I do not understand the teacher and need extra time. (student open ended, community school B, 31/08/2021)

I do, I need more time, sometimes it takes me a while to figure out what teachers said because I can't remember the meaning of some (English) words, I also need time off class (Female student, AS1, 13/10/2021).

Below are some examples from public school C during interviews and questionnaires.

Yes (I need more time), because I can understand better with given time.

Yes (more time is required), so that I can understand more.

(students open ended, public school, 31/08/2021)

This section has provided aggregated findings on how the MOI switch affect instructional time. About 78.6% teachers (11 out of 14 teachers) suggested that additional time is necessary for using code mixing, switching and translation to help student comprehension. These survey results were further corroborated by interviews responses from several participants. The next section will explore various non-MOI factors that also impact instructional time. While the primary focus of this

research is to assess the effects of changing the MOI on instructional time, fieldwork notes reveal that several other factors, unrelated to MOI, also contribute to instructional time constraints.

4.5.2 Low Instructional Time (other reasons)

The use of coding mixing, switching and translation were not the only factors negatively affecting teachers' instructional time. Analysis identified four broad non-MOI-related concerns, which were student sickness; teacher shortages; engagement in non-school related activities during school hours; and a lack of learning and teaching material. Additionally, there are some less frequently mentioned factors include student changes of school, teacher sickness and student financial issues. The particular reason for this circumstance was that these factors have demonstrated that instructional time would be compromised even if the MOI issue was addressed, although the influence of non-MOI factors may not be as significant as that of MOI.

Two respondents expressed difficulty in understanding some content not only due to the use of English but also because of personal health issues. In addition, two students pointed out their wellbeing affected their studies.

"I was sick, so I missed some classes, I was having back pain because I fell once, and my legs are aching for walking long distance. (Male student, private school, 13/10/2021)"

"In primary we were using Swahili and secondary is English, that was the difficulty. Also, I was sick and missed lessons and examinations. (Female student, public school, 25/10/2021)"

Teacher sickness and student changes of school were noted as non-MOI factors affecting instructional time, although these were not frequently mentioned during the fieldwork.

Teacher being sick, there is no way I can teach when I am sick. Absenteeism of the students is another reason (for them to miss some teaching time). Parents did not inform us of their children not coming. (Female teacher, CT1, 28/10/2021). If a teacher is sick, we switch to another class if some teachers are available, if not, then students can read and revise themselves. I have changed schools and missed classes sometimes. (Student open ended, public school, 31/08/2021)

An additional factor, identified by both the RA and a teacher, was the involvement of students in chores or non-school related activities during school hours. In one case, the RA noted down:

They (community school B) don't have auxiliary support (Executive/support staff, etc.), I saw some teachers and students taking maize during class hours to the milling machine which is located 1 km away from school for the processing.

He further explained:

I noticed so because it during class hours and students have to miss some classes for doing the activities. Teachers will not miss teaching hours, but students will miss their classes because they have consecutive lessons twice in a week. (Students go to the milling machine). (When the research assistant is there). Students will miss a whole lesson (40mins). (First Interview with RA, 03/09/2021)

Similarly, one teacher from public school C mentioned involvement in farming and gardening may cause students having less teaching time:

Extracurricular activities like farming or gardening can affect teaching time. (Female teacher, CT3, 21/06/2022).

When asked if there was any other reason other than MOI related affect their teaching time, several interviewees pointed to the issues such as a lack of proper buildings, a lack of learning and teaching material, and the big class size. For example, some teachers said:

There are many things that can affect my teaching. The first is a lack of enough teaching and learning materials like books and chinks. The second is the poor infrastructure especially buildings, lack of windows in the winter season students suffer from cold and cannot concentrate to the lesson. (Male teacher, BT4, 23/06/2022)

Nature of the lesson or topic can be another factor on this (instructional time). Number of teaching materials, sickness of some students and the size of the class can affect the teaching and learning process (Male teacher, BT1, 19/10/2021). You can see we have a big classroom here, they are good kids, but I can't look after everyone if they are chatting with others especially if they are sitting back. (Male teacher, CT2, 28/10/2021).

On top of the factors mentioned above, teacher shortages are considered another reason for reduced teaching time, with indirect connection to financial stability at both individual and school levels.

I (RA) discovered is they (community school B) are short staffing; they don't have a female teacher (the only female staff around is the matron). (First Interview with RA, 03/09/2021)

Of course, we don't have enough teachers, no school has (laugh). If a teacher is sick, we switch to another class if some teachers are available, if not, then students can read and revise themselves. (Female teacher, CT1, 28/10/2021). The biggest challenge we have is number of teachers, the number of teachers is small compared to the students we have, and the ratio is not good (Male teacher, CT2, 28/10/2021).

No! (There is not enough staff to cover a teacher who is sick or leaving for other jobs) It might happen may be after the absence of the teacher for more than three months it is when an alternative teacher can be assigned. I remember when I was schooling in a public school a teacher went to upgrade his career, we were not assigned another teacher for 6 months. In government schools there is no immediate replacement of the teacher but in private the waiting time is relatively shorter. (Male teacher, community school, BT1, 15/06/2022)

One teacher from community school B shared his opinions on non-MOI factors affecting teaching time in private schools, drawing on his previous experience in that sector.

In private schools, the main external factors (lead to reduced teaching time) might include: 1) A student being spelled to home for taking school fees and other contributions; 2) It might happen you have a lesson then some students are not at school that means when they are back you will have to make sure you teach them again (Male teacher, former community school, BT2, 27/05/2022).

Interestingly, the factor “get teachers arriving in class on time” was mentioned by some students in the survey, although we did not notice teacher absenteeism for more than 5 minutes during our visit.

While these factors were not directly linked with MOI, they were essential parts of the teaching and learning process, impacting student OTL even if MOI was switched back to Swahili. This suggested that focusing on MOI factor alone was not enough to address all challenges, although it remained a central focus in the research.

4.5.3 Enough Instructional Time

Although the majority of teachers and students explicated indicated extra time is necessary, there are some positive responses emerged during the fieldtrip. As presented in table 4-29, when I directly asked teachers whether extra time is

required to get their information across in the survey, 3 out of teachers did not think extra time is needed. In addition to Likert scale questions, a small number of teachers indicated that they do not need more instructional time in the open ended questionnaire and during the interview. Some teachers suggested they were able to cover what was required by the syllabus when they use code switching, mixing and translation. For example, two participants indicated in the questionnaire:

No, it (code switching, mixing and translation) doesn't affect my teaching. No need of extra time, I can cover everything within 40 minutes. (teacher open ended, private school, 30/08/2021)

In one case, one teacher thought that:

Code switching does not affect my teaching as the fact the thing I plan to deliver fits in with code switching as one of the ways to deliver the material. It doesn't take more time. Yes (I think I can cover everything in 40mins)! (Female teacher, CT3, 21/06/2022)

Interestingly, the teacher-centred approach was mentioned during the interview as a pedagogical practice that enables her (CT3 above) to “cover everything in 40 minutes”. She further explained:

The government has planned, and it works. Teacher centred is the best although the government suggests student centred. Using student centred you can't cover the content by that way. (Female teacher, CT3, 21/06/2022)

This is echoed by another teacher as well.

I use teacher centred approach to enable me to cover all parts of the syllabus (Male teacher, AT3, 22/06/2022)

In addition, only a minority of students said they are satisfied with the instructional time, for example, one student stated, “No, the time is quite enough; No, because the 40 minutes instructional time is enough for me to understand the concept”(student open ended), although some mentioned more time is required for revision after class.

Together these results provide important insights on how the switch of MOI affects instructional time. It has been found that a reduction in instructional time is prevalent across the three schools. Although these strategies improve student understanding, code mixing, switching and translation contribute to reduction in instructional time. Additionally, several non-MOI factors have also been identified.

4.5 How MOI Affects Opportunity to Learn via Quality of Instruction

Having presented how the switch in MOI from Swahili to English affects the first and second elements of OTL: content coverage and instructional time, this section addresses the third part of the first research question: how the MOI switch affects quality of instruction. As presented in Chapter 2, the quality of instruction focused on instruction practices and instruction resources (Brophy and Good, 1984; Gersten et al., 2009; Herman et al., 2000; Kurz, 2011; Lysakowski and Walberg, 1981; Walberg, 1986). For instruction practices, I focused on factors such as: positive reinforcement, explicit instruction, the questioning of students, the provision of corrective feedback and classroom climate. For instructional resources, I drew on OTL related factors frequently cited in the literature and adopted Winfield and Woodard (1994)'s definition of teaching quality. This definition includes three key three elements: instructional quality (e.g. teaching experience, teacher certifications, etc), resources (adequate physical space, access to textbooks, etc.) and school conditions (high expectations for student learning). These factors are considered together for their connected nature. The availability of instructional resources may help to explain some of the differences observed among schools. These factors could answer the second part of research question 2: How do the effects of MOI on OTL vary by school types (community, private and public schools), and what may account for this variation (presented in Chapter 6)?

Table 4-30 below links the third element within the OTL framework (quality of instruction) with its corresponding data collection and analysis methods. Data sources include fieldnotes, survey results and semi-structured interviews findings. This section first present findings from teacher's perspective and fieldnotes (4.6.1). The reasons and details regarding how the switch in MOI have affected how quality of instruction was discussed later. It is important to note that the primary data source used to substantiate quality of instruction comes from classroom observations, which are detailed in the following chapter (Chapter 5). Even though it has been briefly presented in the first two sections, it is necessary to stress since quality of instruction is largely affected by content coverage and instructional time.

Table 4-30 Data Collection and Analysis (Quality of Instruction)

Research Question	Data Source	Methods
1.3 The impact of MOI policy on quality of instruction.	Fieldnotes; Student and teacher surveys; Interviews	Descriptive statistics for survey data; Thematic analysis of interviews.

4.6.1 Dominance of Teacher Centred Instruction and Limited Interactions

Data collected from this fieldwork showed a dominance of teacher centred instruction with and limited interactions among students and between students and teachers. Instructional group formats were mainly towards whole class, with little to no pair work or small groups. Teachers frequently used closed ended questions, and feedback provision was also limited. There was also an explicit expression of using lecture method in order to cover as much as content as possible within the allocated teaching time. However, the extent of teacher-centred instruction and interactions varied across different schools. These differences were discussed in detail in Chapter 6, which compared and highlighted the variations observed between schools.

For example, the RA has noted down that:

Students were not fully engaged in conversation while using English, however they did so use Swahili, with Swahili they could respond to questions once they failed to respond. From what I(RA) have seen most of the teachers use lecture method and few follow up questions. No small group discussions, no student led activities, teachers do not ask open ended questions. From where I was sitting, I could hear chorus answers from some classes.

He further explained what lecture method he observed is.

Yes, lecture method is teaching where the teacher is the one that talks throughout. Teachers stand in front of the class (few moments), write the notes down and ask closed ended questions (Do you understand? Students often responded with a simple "Yes" or "No") No discussions among students, no students led activities. (First Interview with RA, 03/09/2021)

Teacher was using lecture method, by writing and explaining the notes he is writing and providing examples. Some students participated in their learning, however the method used was lecture style. (Second Interview with RA, 04/10/2021)

The main teaching methods are lecture method, teacher dominates and students listen and copy notes to their notebook (Third Interview with RA, 15/11/2021)

Responses from interview and open-ended questions from teachers also collaborated the RA's finding. The dominance of teacher centred approach could also influence the classroom atmosphere, a factor that was crucial for student engagement and learning outcomes.

Mostly is to use teacher centred method that is against the modern teaching (because we cannot cover all the content of syllabus in a single lesson, 40 minutes). With this type of teaching a teacher talks much and giving a very minimal time for students to share what they have with me or with their peers. It is a lecture method at maximum. (Male teacher, BT2, community school, 19/10/2021).

All students understand Swahili and can respond and become active and relaxed when using Swahili, it (Swahili) keeps them engaged, raising hand (to answer questions), and keep me motivated (Teacher Open ended, public school, 31/08/2021).

Teacher centred is the option I use but with little engagement of the students. We have very high expectation of them, they are quiet generally, which is good for classroom management, but the class environment is not very active and relaxed, and somehow affect how my teaching, and I will explain in Swahili so they can engage with me better (Male teacher, CT4, private school, 21/06/2022)

Further probing how little interaction and engagement affect his teaching, the teacher said:

We have a big classroom, so I cannot interact with everyone, but if they show understanding, like nodding or following my thoughts, what I said, I feel better, I feel they understand what I said, not just sitting there with me talking to myself (Male teacher, CT4 21/06/2022).

Now turning on to the classroom climate, survey finding suggested all 14 teachers agreed that more interactions between students and teachers were more likely to occur in classrooms where students feel comfortable (Table 4-31). However, perception regarding the current atmosphere when English was the MOI are mixed. When asked if the English classroom climate was friendly and relaxed, the data indicated that teachers had varied perceptions about whether English-medium classrooms were friendly and relaxed (Table 4-32). While a majority of teachers saw these classrooms as positive environments (8 out of 14), a minority (4 out of 14) who felt the opposite, and 1 remained neutral.

Table 4-31 I believe more interactions among students and teacher can occur in a classroom when students feel comfortable.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	agree	7	50.0	50.0	50.0
	strongly agree	7	50.0	50.0	100.0
	Total	14	100.0	100.0	

Table 4-32 The English classroom climate is friendly and relaxed.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	3	21.4	21.4	21.4
	disagree	1	7.1	7.1	28.6
	neutral	2	14.3	14.3	42.9
	agree	6	42.9	42.9	85.7
	strongly agree	2	14.3	14.3	100.0
	Total	14	100.0	100.0	

The quotations and survey data above revealed a prevalent trend of teacher centred approaches across three schools when English was used as the MOI. Participants suggested that this method, when teachers talk throughout, often prevented students from fully engaging in the classroom. Earlier in section 4.2, student reactions and behaviours when English was used as MOI were presented earlier in detail, such as “feel lost, confused and bad as not knowing anything”, “has no idea of the language”, “they (student) just staring at me, so I have to translate”. As explained earlier in this section’s introduction, classroom observations served as the primary data source for assessing quality of instruction. Additional evidence to substitute the findings was presented in next chapter.

Another common view amongst interviewees was that use code mixing, switching and translation as translanguaging strategies could improve quality of instruction, particularly in terms of positive reinforcement, questioning students and classroom climate.

As some teachers explained,

“They (students) are more likely to answer my questions when I translate, I will praise them, and they generally get more encouraged to raise hands in the future. (Male teacher, BT1, 19/10/2021).”

By sometimes alternating between Swahili and English, I create a warmer classroom atmosphere. Students are more relaxed and confident when they can express themselves in their preferred language, which enhances overall class participation. (Male teacher, AT1, 15/10/2021)

In one instance, the participant reflected,

"Use Swahili can definitely encourage my students to think critically but it can lead to more time. By explaining in both languages, it can deepen their understanding. I will first speak in English of course, if I see most of them do not understand, I will use simple English words or explain in both languages and ask them to discuss with their peers in any language(if we have time) and can report back in English. They will make mistakes in English for sure, but I am able to correct them when time is allocated. Short phrase praise can be quite important, especially for girls in my class, they are not as active as boys. So when they answer questions even in Swahili, I will say "good job" in order to keep them motivated (Male teacher, AT2, 15/10/2021).

Additional quotations presented here were not a repetition of what presented earlier (content coverage), but to highlight the co-occurrence of the three OTL elements. To summarise, quality of instruction was undermined when English was used as MOI. A significant impact was the prevalence of a teacher-centred approach, characterised by limited interaction and engagement between students and teachers, as well as among the students themselves. This approach was evident from the predominance of teacher talk throughout the lesson, students copying notes and the use of closed-ended questions that only allow for responses like 'Yes' or 'No' from students. It was also discovered that incorporating Swahili into the instruction through code-mixing, switching, and translation can enhance the classroom climate and keep students more motivated through positive reinforcement. Further details on classroom dynamics were presented in the next chapter through classroom observations.

4.6.2 Common Reasons affecting Quality of Instruction

In this section, I outlined common factors identified by teachers and students across three schools that might have affected the quality of instruction, specifically focusing on the availability of instructional resources. These included the availability of in-service training and books. It should be pointed out that each school had its own

distinct feature that can influence quality of instruction. Disaggregated data were presented in Chapter 6 to highlight the differences observed among the schools.

To begin with, it appears that regular training to enhance instructional skills is lacking across the three schools. Only one interviewed teacher (AT1) reported having participated in professional development since college.

Most teachers (who have been recently employed in last six years) have not been getting professional development in their department (Second Interview with RA, 04/10/2021)

We (teachers) have not got in-service training this year in our school, and I am new (1 year volunteer and 1 full time when interviewed) in the school so I cannot say much about it. When a chance is available is good for the teachers' skills in tenses and grammar to be polished also taught some communication skills on dealing with students, I would like to have it. (Male teacher, AT2, 15/10/2021).

Teachers are not competent in English language; in-service training are not there (in our school) but I would like to have for me and other teachers. Learning language is an individual interest therefore you cannot make them comfortable in a single day or night. Regular ones without us sacrificing teaching and personal time would be nice. If I could have a chance the first thing to do is to make policy which allow teachers to teach in the language they are comfortable (Male teacher, BT2, 19/10/2021).

For the time I have been here (two years when interviewed) we have not had in-service training in improving the teaching, hopefully there will be in the future. (Male teacher, BT1, 19/10/2021).

I have not attended the in-service training, if there are any, I have not attended any, but I heard before my employment back then there was some training conducted. I think is good to bring them back for us (Male teacher, CT2, 28/10/2021).

The survey findings (Table 4-33) also corroborated the interview data, suggesting that the majority of teachers were interested in receiving in-service training as a form of professional development. Of the 14 teachers who participated in the survey, 13 expressed a desire for in-service training to improve their instructional skills.

Table 4-33 I hope there should be in-service English training to improve my instructional skills.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	disagree	1	7.1	7.1	7.1
	agree	9	64.3	64.3	71.4
	strongly agree	4	28.6	28.6	100.0
	Total	14	100.0	100.0	

Two teachers gave examples of how they believed in-service training can be useful.

We had some courses for professional development, like past month we had seminar for teachers who are teaching science subjects. Next month we will have another seminar for teachers who teach art subjects. Once they come TELTA(Tanzanian English Language Teachers' Association), provided by American people for teachers of English language and they provided certificates. I attended the some even while I was in college. The courses are increasing my comfortability in teaching, that is why I had interactive classes because of these seminars. (Male teacher, Private school, AT1,15/10/2021)

Another teacher, with 6 years teaching experience, also shared his thoughts on the potential advantages of such training.

I attended some workshops and seminars where training staff let us know how to better work with students while (studying)in the university and working in the educational related charity. Thus, I know in my class, when I introduce a lesson I can use much efforts to make the learners understand what exactly we are aiming to cover in a topic but in other parts I can use minimal efforts.

For example:

If I am teaching history to a certain class and then it is a new topic such as: TRIANGULAR SLAVE TRADE:

I can use even 80% of a whole lesson telling them background of the topic, who were involved, why were they involved, what were the aims? Where did it take place. From my experience basing on these hints even if a student is a slow learner, he or she will understand exactly what TRIANGULAR SLAVE TRADE is.

By doing so, other parts can take just few lessons to cover the topic. That is how experienced teachers handle the class. I learned through my years of teaching and some workshops I attended previously. The time to discuss mostly is there but it happens when you want to connect with the past topic in connection with the current topic or you want to test their knowledge.

For example, from the topic I have shared with you about Triangular Slave Trade

I can test students' knowledge about the concept slave. They should tell me who is the slave and what are implications! I will encourage them to speak in English but allow Swahili if it helps. Then I can conclude by reminding them what they learned in past classes in connection to what we have to cover in a recent topic.

Sometimes I will ask students, sometimes the quiet ones who do not raise hands to summarise to further test if he or she remember what is being taught. When they answer the question, I acknowledged and said, “good boy” or “good girl”, hopefully to get them motivated for future. (Male teacher, BT2, 19/10/2021).

The previous example illustrated what his history classroom might look like. Factors such as in-service teacher training and teacher experience contributed to a smoother teaching process. Additionally, the availability of instructional resources should not be overlooked when aiming to improve the quality of instruction. When asked if there were sufficient resources to help students transition to secondary school, 11 out of 14 teachers disagreed, with 7 expressing strong disagreement (Table 4-34).

Table 4-34 I think we have enough resources to help students transform into our secondary school.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	7	50.0	50.0	50.0
	disagree	4	28.6	28.6	78.6
	agree	2	14.3	14.3	92.9
	strongly agree	1	7.1	7.1	100.0
	Total	14	100.0	100.0	

Upon further investigation into the types of resources they lacked, the most frequently mentioned were books and dictionaries. Some less frequently mentioned resources students wished to have included labs, an increased number of teachers, and more competent teachers. As several students explained:

*(We need) books and dictionaries, so that we can learn better the language.
Books and competent teachers
Teachers to be competent in their teaching.
Dictionaries, books maps and lab apparatus (Student Open ended, 30/08/2021).*

Yes, I do read English books at home, but I don't have any books yet. I am using my sister's books because I haven't bought any books. But some who had no siblings with books they buy their own books (Male student, BS2, 18/10/2021).

This view was echoed by another student who reported:

No, I don't have any (books), I usually borrow from teachers (Female student, BS5, 19/10/2021).

The shortage of books was observed and admitted by teachers and the RA as well.

Yes(student read books), but very few have the books (Male teacher,BT1,19/10/2021).

Only few textbooks for teachers, no books for students. (First Interview with RA, 03/09/2021)

No, I don't think so, they don't have books to read (Male teacher, CT2, 28/10/2021).

No, they don't have any books I think, they don't have that culture of reading books. (Female teacher, CT1, 28/10/2021).

To further explore how a lack of these resource will affect them, some students explained.

Some words were new to me and hard to understand, moreover I didn't have a dictionary that could help me to translate the meaning of new words, if I had a dictionary that time, things could have been otherwise maybe (Male student, CS5, 22/10/2021).

The difficulties are when you have a new word and you can mistake the meaning, I don't have a dictionary to look it up and I borrow from my friends (Female student, CS12, 26/10/2021).

One teacher also explained how having a story book can be helpful.

Some yes have it, I have seen some with dictionaries and some with books. And right now, I have just borrowed a story book "Fur and white" from one of the student to have a read at it. We can read together and learn some new words, and encourage them to read English as much as possible(Male teacher, AT2, 15/10/2021)

Concerns about how to use books were spread among teachers. Some teachers believed having books was not enough, what made a difference was how students used them. In one case, the respondent thought that:

I can say they (students) have some (books), however the problem with my learners is not having resources but how to use them. They may have the books and still not know how to utilize them for independent learning. When they are at home, they miss close supervision and parents do not supervise them and they become free compared to school (Male teacher, AT1, 15/10/2021)

4.6 Discussion

The purpose of this chapter was twofold. First, it provided an extensive description of each school, and the participants involved in this research (section 4.2). Second, it

presented aggregate findings from surveys and interviews to address the first research question (section 4.3-4.5):

- How does Tanzania's MOI policy affect student OTL in terms of instructional time, content coverage and quality of instruction in secondary schools?

Consistent with previous studies (Brock-Utne et al., 2019; Qorro, 2006; Vuzo, 2012), this research demonstrates that Tanzania faces a significant MOI crisis. One key finding from the analysis is that all three perspectives of OTL (content coverage, instructional time and quality of instruction) are negatively affected by the switch of MOI across different types of schools. Specifically, the majority of teachers in this study expressed dissatisfaction with their students' English proficiency. Most students reported that the transition to secondary school was challenging. With a closer inspection of the data, this study demonstrates that insufficient instructional time is also prevalent across all three schools, which can be partially explained by using code mixing, switching, and translation. Most teachers believe this "practical" strategy as necessary and might related to students' unsatisfactory English abilities, although it helps students transition into secondary school and further learning. There are some suggestions that the teacher's own English abilities may play a role as it raises questions about their capability to cover difficult topics and all topics in depth. Moving to the quality of instruction, switching MOI has presented a negative impact on explicit instruction, questioning students, providing corrective feedback and classroom climate.

Before discussing how each element of OTL is impacted by the switch of MOI based on aggregated data from survey and interview, I first want to engage with contemporary debate on multilingual education to understand the language practices across three schools as teachers tended to talk about what they do in a lesson rather than what the students do under the OTL framework. As discussed in the literature review (Chapter 2), most students in SSA countries experience a MOI switch at some stage within their basic education cycle, and being multilingual is a valuable skill for people living in this area (Heugh, 2019). In Tanzania, the current language policy follows a "late exit" transition which the indigenous language, in this case, Swahili, is initially used for formal education (pre-primary school and primary school)

but will be eventually replaced by the colonial language (English) at advanced educational levels (Secondary education and onwards) (Bowden and Barrett, 2022). A possible explanation indicated by some teachers who participated in the research is the fact exams are conducted in English and English is useful for future job prospects. For example, some teachers noted:

Students need to overcome difficulties caused by the transition, using Swahili is easy, but they will lose more in the future (exams, jobs). (Male teacher, community school, BT1, 19/10/2021).

This finding is consistent with that of Sheikh (2023), Areaya and Tefera (2020) and Casale and Posel (2011), who suggest that English is increasingly supported from teachers and parents in SSA countries for its economic attractiveness. Through the fieldwork, it appears the current language policy might promote a monoglossic language ideology in the classroom through some extent of a subtractive model. This is evidenced by practices such as increasing exposure to the L2 (English) with assumption longer exposure of Language 2 can lead to learning the language (*I will encourage them to speak in English; Can you speak in English?*). Additionally, the slogan displayed on the headmaster's door "No English, No Service", and instances where students might be denied service for not speaking English (*without speaking English you'll have no service*).

The ideology and its associated subtractive MLE model often have a connection with colonial history and place a strong focus on languages standardisation, the mastery of language rules and structures in second language learning. The most obvious finding to emerge from the analysis is that students have difficulty understanding the content and what teacher is talking about, as a result, being silent or feeling confused and frustrated are not uncommon. The findings are in line with some existing literature that highlights the harms of the subtractive MLE model in multilingual setting, such as dehumanising experiences experienced by students in the classroom and epistemic exclusion and injustice (Kiramba, 2018; Laitin et al., 2019; The World Bank, 2021a; Zinn and Rodgers, 2013).

However, a transglossic language ideology and the associated additive MLE model were also presented in the classroom to address the reality that students struggle to understand content solely through English as MOI. Transglossic perspectives focus

on the mixed use of different languages, and this approach recognises and embraces the fluid and dynamic use of a wide range of linguistic resources beyond standardised languages (García, 2009). In my research, Swahili was not recognised as an “illegitimate language” in the classroom. Students who used Swahili in answering questions did not have to wear a dry bone as a punishment, nor was their local language only considered useful for “lighting a fire”(Kiramba, 2018).

One of the more significant findings to emerge from this study is that code mixing, switching and translation as translanguaging strategies were prevalent across all three schools. While not the teachers' first choice, these practices served as practical strategies that can improve content coverage and quality of instruction when students did not understand English as the medium of instruction. Interview analysis revealed the code mixing, switching and translation were not limited to within or between sentences, they were also employed multimodally, such as by writing in English on a blackboard while offering oral explanation in Swahili. The findings extend the original definition of code mixing and switching proposed by Brock-Utne and Holmarsdottir (2004), who did not specify whether the changes or switching can occur in spoken or written language, or just spoken language.

The findings of this research might provide valuable insights into how translanguaging can improve learning experience in multilingual classrooms. Positive classroom climates are more likely to happen when translanguaging strategies are officially allowed and encouraged to use. This is because research has demonstrated that the movement between languages are inevitable for both social communication and academic learning in multilingual contexts within SSA (Erling et al., 2021; Guzula et al., 2016; Makalela, 2015, 2019). As one teacher indicated that all students understand Swahili and can respond and become active and relaxed when using Swahili. Swahili can keep students engaged, encourage them to raise hand to answer questions, and also keep teachers motivated. In addition, other teachers allow students to report back in preferred language, which can improve class participation. This practice used by teachers demonstrates a feature of the additive MLE model, which advocates for addressing learners' language needs and progressively incorporating a second language (L2) alongside their main language and other languages used in education (Bowden and Barrett, 2022).

As a subset of translanguaging, the use of code mixing, switching and translation by teachers significantly improves student understanding of content, as well as their emotion and confidence. For example, many students, regardless of which secondary school they are from, have acknowledged the necessity of code mixing, switching and translation and insisted teachers should use them to facilitate learning. The finding is in line with Makalela (2015) who aims to evaluate the effectiveness of a 3 months translanguaging intervention for 60 pre-in service teachers in South African. As presented earlier, that alternation between languages is not teacher's first choice or not purposeful; rather, it depends on the level of student understanding. A possible explanation might be the fact that code mixing, switching and translation are not officially allowed as language practices under the current language policy in Tanzania. Another possible explanation is that some teacher might perceive such practices as "unprofessional" or worry that they may be seen as a reflection of poor teaching ability, especially from inspectors' perspectives.

Several translanguaging strategies were identified through interview and fieldnotes. To be more specific, an adapted version of contrastive elaboration involving using multiple languages to expand and deepen understanding of concepts was noted. Teachers also indicated allowing students to use any languages during peer discussion and report back in the target language (English). The focus is on the functional use of languages on instead of the structure of language forms. Prior research has identified these practices not only can deepen comprehension of content, improved teachers' sense of multifaceted identity but also fostered a favourable learning experience (Makalela, 2019, 2015). However, whether there is peer discussion depends on how much time they have, and teachers do not actively blend two languages until they identified students have a difficulty in understanding.

The previous section discussed the language practices emerged during the fieldwork and highlighted the benefits of translanguaging in facilitating student learning. The next section moves on to discuss how the switch of MOI affects different element of OTL. To start with, content coverage was negatively impact by using English as MOI. A significant portion of teachers among 14 teachers surveyed, 10 agreed, three of whom strongly agreed, that more curriculum content could be covered if the MOI

were Swahili or a familiar language. A possible reason indicated by teachers is their English proficiency. Specially, more than half (57.1% and 64.2%) believe that their proficiency in English hinders their ability to cover complex topics and topics in depth.

These results support one of the reasons for low coverage indicated by Carnoy et al., (2015), who identify that teachers often skip math lessons due to a lack of understanding of how to teach the math concepts outlined in the curriculum. My findings provide a possible explanation for this issue that teacher's limited English proficiency may contribute to the skipping of complex content. This might be able to offer insight into what surveyed South Africa and Botswana teachers mean when they say they "do not understand how to teach concepts in the curriculum(p.215)". Their reported difficulty may reflect challenges in teaching complex topics or covering subjects in depth. Other reasons listed by Carnoy et al. (2015) as explanations for low coverage, such as scheduled in-service training, departmental and union meetings during school hours, are not found in my research. However, a non-MOI related reasons, such as absences due to illness, has been identified, which I discussed in relation to the second element of OTL: instructional time.

Although the strong focus on covering all content received challenges in the academia in recent years. For example, Petersen et al. (2020) argue that focusing on covering all topics can limit the adoption of more effective, evidence-based teaching methods that promote deeper learning and student engagement. Content covered does not necessarily mean content learnt by students. However, other studies (Barr, 1983; Oketch et al., 2012) have identified a positive relationship between content coverage and student learning. However, it should be noted that the definition of content coverage in my research is different from Oketch et al. (2012), who use Kenyan Grade 6 mathematics as an example and compare the proportion of content covered in mathematics at Grade 6 to the syllabus.

As discussed in the methodology chapter, this research is not a replica of Oketch et al. (2012)'s but it is inspired by their methodological and conceptual frameworks. While in my research, I directly asked teachers whether they think that more curriculum content could be covered if the MOI were Swahili or a familiar language,

as a demonstration of my interpretivism research belief that “research represents a shared space, shaped by both researcher and participants” (England, 1994 cited from Bourke, 2014, p.2). Having said that, I have compared learning and teaching activities observed in the classroom with their relevant syllabi, but in this chapter, I provide aggregated data from survey and interview to substantiate my findings.

As previously discussed, inappropriate schedule of in-service training might contribute to low content coverage (Oketch et al., 2012), although this issue was not observed in my research. However, survey results and interview data across all three participating schools reveal a significant lack of in-service training for teachers. There was no training programme specifically aimed at guiding teacher on the use of different translanguaging practices, which can bring both cognitive and social advantages (Makalela, 2015). Survey data demonstrated that 13 out of 14 teachers expressed a strong interest in receiving in-service training to improve their instructional skills. These findings align with previous studies highlighting the importance of in-service training for rejuvenating pedagogical knowledge, obtaining new skills, and sharing best practices (Jahangir et al., 2012; Ngware et al., 2014; Nzarirwehi and Atuhumuze, 2019; Seğer, 2010). For example, during the interview, one teacher indicated learning to make classes more interactive through seminars offered by the Tanzanian English Language Teachers' Association (TELTA).

Moving on to the second element of OTL: instructional time. Interestingly, the research has found that, as popular language practices, code switching, mixing and translation in multilingual classroom across all three schools can help students understand content, but these practices have an impact on instructional time. The switch of MOI can affect OTL through non purposeful translanguaging strategies. One of the most apparent impacts of the switch to English is on instructional time. The need for teachers to repeat content in both English and Swahili reduces the overall time available for covering the syllabus. It can be seen from survey data that the majority of teachers (11 out of 14) admitted that they need to spend extra time in the classroom (such as use code switch, code mixing and translation) in order to get my information across. One reasons for reduced instructional time is due to students' poor English skills, as a result, they need longer time to figure out what the teacher said.

In reviewing the literature, several studies (Han and Peirolo, 2021; Karamperidou et al., 2020) have highlighted the common issue of teacher absenteeism in African countries, which they identified as one of the main factors contributing to the learning crisis. In Tanzania, data collected from 259 primary school teachers revealed that 10% of teachers are absent from school once a week, and 8% are absent more than once a week. However, the issue was not identified during the fieldwork, with the only exception that one teacher was outside of classroom for 5 minutes in one of the classroom observation (presented in next chapter). However, some students called for “get teachers arriving in class on time” in the survey (one of open ended questions), indicating teacher being late might have happened before. The findings may be somewhat limited by the fact that the schedule of school visit was mutually agreed between teachers and RA/me. However, there are some non-MOI factors impact on instructional time, such as sickness, taking maize during class hours, farming and gardening and shortage of teachers. This findings might help us to understand MOI is not the only factor that influencing instructional time. Non- MOI factors should be dealt with by the relevant stakeholders, including head teachers and policy makers. Additionally, there should be a concerted effort to schedule non-school-related activities outside of instructional hours to minimise disruptions to learning.

Quality of instruction, the third element of OTL, was also the most impacted factor when English is used as the MOI. Survey and interview data reveal that a teacher-centred approach with very limited interaction with students was prevalent across all three schools. This is partially explained by the reduced instructional time resulting from teachers using code-mixing, switching, and translation to cover the content. While these language practices can help students comprehend the material, they also consume more instructional time. In simple words, if a teacher prioritises content coverage, they might have to sacrifice the time that can be used for student interaction and peer discussion. On the other hand, if teachers want to adopt the student centred approach recommended by the policy, which is not common in this research, they might not be able to cover the content within scheduled time.

The OTL framework has been invaluable for comprehending the complexities of the schooling process, especially regarding the essential inputs within a school setting that lead to student achievement of intended outcomes (Burstein et al., 1995; Carnoy et al., 2015; Elliott and Bartlett, 2016). From the fieldwork, I noticed that teachers tend to focus more on their actions, strategies, and behaviour in the classroom rather than on what students do. This teacher-centric narrative might have several important implications. First, it suggests that teachers may not be fully attuned to student engagement and learning processes, potentially overlooking key indicators of student understanding and participation. As Folden (2002) suggests that the quality of instruction is largely within the teacher's control, although it can also be influenced by various factors within the broader educational system. As a result, the teacher focused framework could result in instructional practices that are less responsive to the immediate needs of students. Second, it indicates that professional development for teachers may not adequately emphasise the importance of student-centred observation and assessment. Consequently, teachers might lack the skills needed to effectively respond to student behaviours and learning outcomes. Lastly, this focus on teacher actions rather than student activities could limit the development of a more interactive and student-centred learning environment, reducing opportunities for students to actively engage in their own learning and might lead to epistemic exclusion (Kiramba, 2018).

Taken together, the survey and interview data highlight the interconnected nature of OTL, showing that the three elements (content coverage, instructional time, and quality of instruction) all co-occur during instruction. More importantly, the findings reveal that monoglossic and transglossic ideologies also coexist during the fieldwork. Furthermore, the transglossic language ideology, along with the associated additive MLE model and translanguaging, can improve student OTL in multilingual classrooms, particularly from the perspective of instructional quality.

Some of the issues emerging from this finding relate specifically to Tanzanian educational policymakers. They should recognise that translanguaging pedagogies, which utilise students' full linguistic repertoires, can offer new insights for language and literacy development in multilingual students, helping them become more proficient in both their home language and English. Consequently, policymakers

should consider formally incorporating translanguaging strategies into the curriculum and provide guidelines and training for teachers on how to effectively implement this approach. Although many previous studies (Duarte, 2020; Guzula et al., 2016; Makalela, 2019, 2017, 2015) have demonstrated the benefits of different translanguaging strategies, such as contrastive elaboration, scaffolding, and prediction, in terms of cognitive and social advantages, confidence building, and increased participation for students, they have not specifically linked these to the OTL framework, which evaluates necessary processes and inputs in a school for obtaining intended outcome. In not doing so, there could be a gap which reflects an access problem, especially in the era of “education for all,” where MOI could play a significant role. By allowing teachers to use both English and Swahili flexibly, they might be less likely to skip difficult concepts and can explain concepts more in depth. Similarly, students are encouraged to use full linguistic and semiotic repertoires for a deeper understanding and retention of content. In addition, acknowledging and incorporating students' linguistic resources, translanguaging can contribute to greater educational equity.

After highlighting that all three aspects of OTL, content coverage, instructional time, and quality of instruction, are negatively affected by the switch in the MOI through aggregated survey and interview findings, the next chapter presents findings from classroom observations. These observations provide further insights into how the MOI impacts classroom dynamics and student learning experiences.

Chapter 5 Findings from Classroom Observation

Introduction

The previous chapter presented aggregated findings from surveys and semi-structured interviews, aiming to answer the first research question. This chapter also aims to answer the first research question but shifts its focus to data collected from classroom observations. In this chapter, I first present findings from classroom observations, including differences between teachers. After the initial round of data collection through a questionnaire, which was completed by the end of August 2021, three repeated classroom observations were conducted, one in each school, from September 21st to October 1st, 2021. Details about the participants who agreed to be observed were presented in Chapter 4.2. Table 5-1 below is a quick reminder for the time, subjects and number of students involved in the classroom observations.

Table 5-1 Classroom Observation Schedule

School Type	Subject	Time	Number of Students
Private School A	English	Tuesday 21 st and 28 th September 2021	12 (Girl:05; Boy:07) 13 (Girl:05; Boy:08)
Community School B	Geography	Tuesday 21 st and 28 th September 2021	20 (Girl:11; Boy:09) 31 (Girl:20; Boy:09)
Public School C	English	Friday 24 th September and 1 st October 2021	47 (Girl:26; Boy:21) 45 (Girl:26; Boy:19)

Table 5.2 below presents all elements within the OTL framework which classroom observation used as a data source. This chapter is divided into five sections. First, I use two figures to illustrate how teaching time is allocated in each school (section 5.1). Then, I examine each school's classroom dynamics in detail (section 5.2-5.4). Specifically, it focuses on teacher and student behaviours, whether there is different grouping format, positive reinforcement and whether teaching questions students, whether code mixing, switching and translation as translanguaging strategies occur and under what circumstance they occur, etc. I also compare observed learning activities with what is suggested in the relevant syllabi and student textbooks to comment the content coverage. Finally (section 5.5), I provide a discussion section to analyse the implications of the findings and their significance.

Table 5-2 Data Collection and Analysis Summary (Classroom Observation)

Research Question	Data Source	Methods
1.1 The impact of MOI policy on content coverage	Fieldnotes, Classroom observations;	Stalling Classroom observation data; Comparative observed learning activities vs. syllabi;
1.2 The impact of MOI policy on instructional time.	Fieldnotes Classroom observations;	Stalling Classroom observation data;
1.3 The impact of MOI policy on quality of instruction.	Fieldnotes; Classroom observations;	Stalling Classroom observation data;

5.1 Overview of How Time Spent Across Three Schools

During the observations, a teacher-centred approach was prevalent across all three schools. The observed activities were grouped into 4 categories which are: i) learning activities (reading aloud; demonstration/Lecture; discussion/debate/question and answers; practice and drill; assignment and class work and copying), ii) classroom management (verbal instruction; discipline; classroom management; classroom management alone), iii) student off task (social interaction; student(s) uninvolved; discipline), and iv) teacher off task (social interaction; teacher social interaction or teacher uninvolved and teacher out of the room). Learning activities were further divided into active instruction and passive instruction. This chapter starts with a general overall of how time was spent in classrooms through two figures and followed by rich descriptions of classroom dynamics to support the findings.

Figure 5-1 and Figure 5-2 showed that, across all three schools, 90% of class time was spent on learning activities, while only 10% spent on classroom management (community school B) and teacher off task behaviours (private school A). In week 1 (Figure 5-2), for private school A, 80% time was spent on demonstrations or lectures with 10% allocated to discussion, debates, or answering questions. At community school B, 40% of the time was spent on demonstration or lecture, and another 40% on copying. For public school C, 80% was spent on demonstrations or lectures with the remaining 20% on discussion, debates, or answering questions.

In week 2 (Figure 5-2), the percentage of time being spent on learning activities remained at 90%, with 10% spent on classroom management (community school B).

At Private School A, 50% of class time was spent on demonstration or lectures, 40% on discussion, debates, or answering questions, and during one observation (10% of class time), the teacher was out of the classroom. In community school B, the percentage of time spent on demonstration or lectures was the same as in private school A (50%). The other half 50% time was divided between discussion, debates, or answering questions (20%), copying (20%) and classroom management (10%). Public school C had the highest percentage on demonstration or lectures, with 80% time dedicated to these activities. The remaining 20% was spent on discussion, debates, or answering questions.

Figure 5-1 How Teacher Use Classroom Time (First Week Observation)

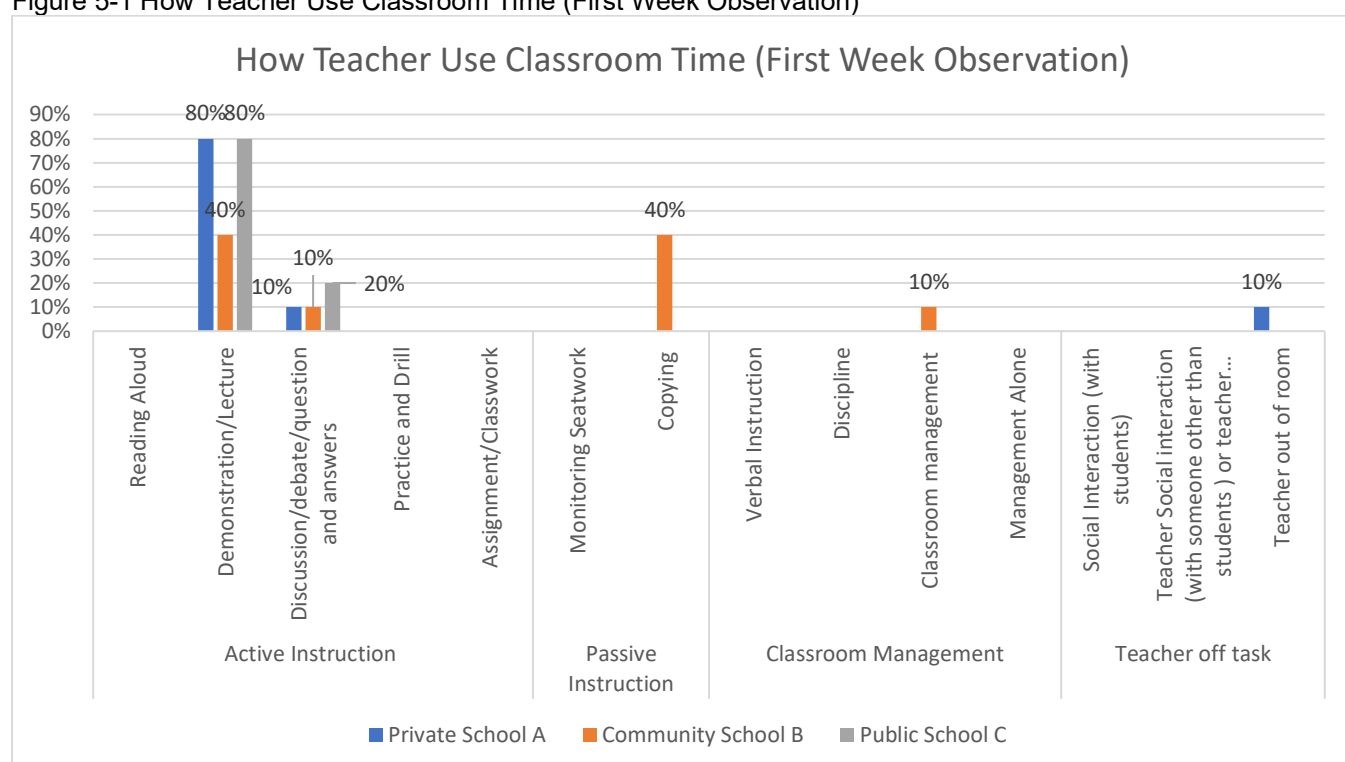
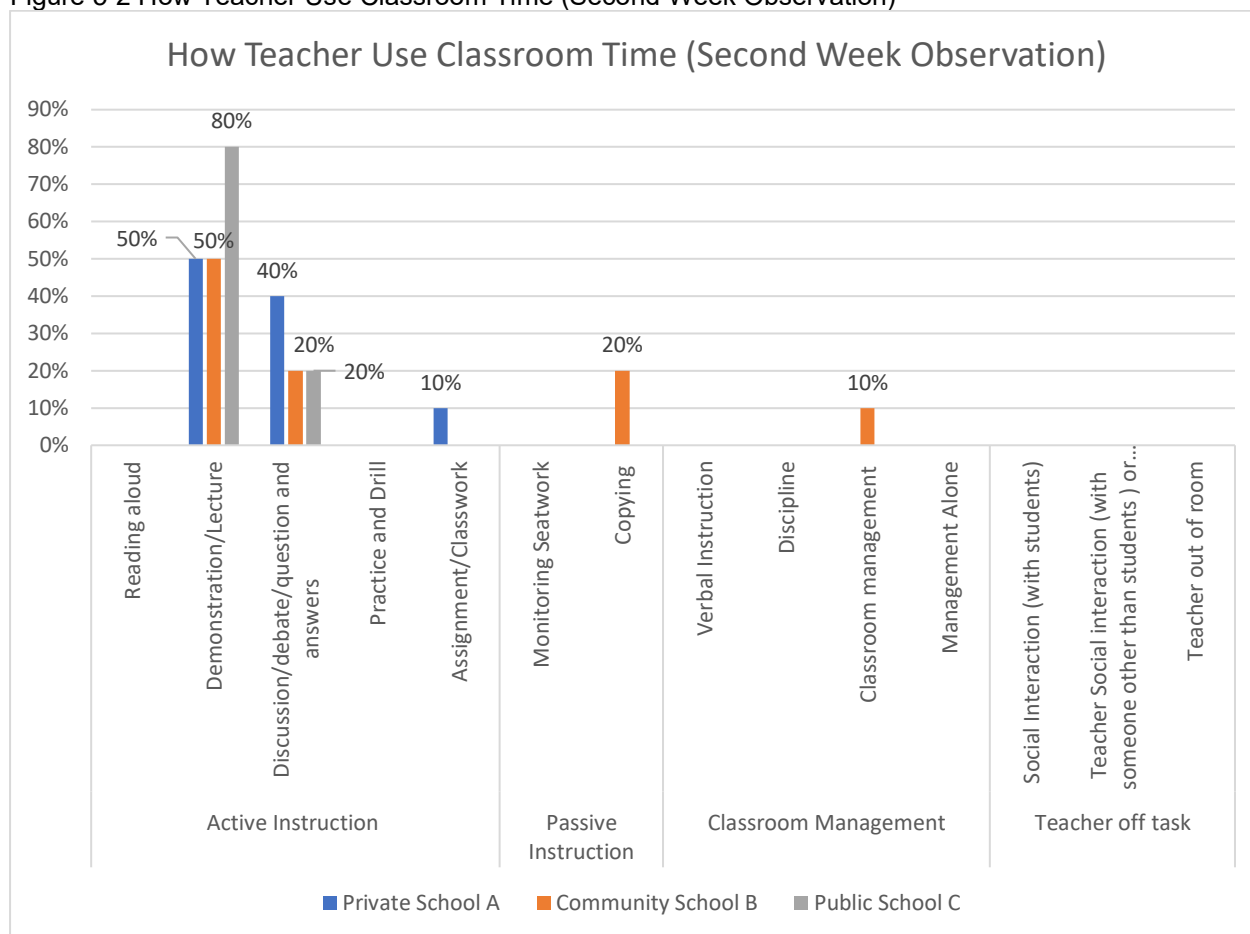


Figure 5-2 How Teacher Use Classroom Time (Second Week Observation)



After presenting the descriptive data on how classroom time was allocated, I now move on to describe the actual classroom dynamics, starting from private school A, followed by community school B and public school C.

5.2 How Teaching Time is Spent in Private School A

This section focuses on to present actual classroom, specifically how teachers and students behave when English was used as MOI. As previously stated, content coverage in this thesis mainly draws on responses from teacher survey. In addition to this, I compare observed learning activities in classroom with what is suggested in the syllabi to explore if there is an alignment.

5.2.1 Classroom Dynamic

The classes observed in private school A were two English lessons, taught by Mr. M, who holds a degree and also serves as the headteacher of the school. Mr. M has over 10 years teaching experience.

Turning now to the real classroom, as was mentioned in methodology chapter, I adopted the Stallings Observation snapshot developed by Stanford professor Jane Stalling in the 1970s and later used by the World Bank (Stallings et al., 2014; The World Bank, 2017a). This classroom observation approach is designed to see how teachers use teaching time, such as the lecture, demonstration, debate, asking and answering students' questions, and classroom management, and the percentage of each activity. The whole lesson is divided into 10 snapshots, each recording what the teacher and students are doing at the exact time. Since the duration of the class that the RA and I observed lasted 40 minutes, therefore the 10 snapshots were at 3, 7, 11, 15, 19, 23, 27, 31, 35, and 39 minutes.

In the first week (9:40-10:20 am, 21st Sep 2021), the first snapshot was taken 3 mins after the class started, but the teacher was out of class, providing instructions to another class (9:43am). The students remained quiet, seemingly working on completing other assignments, the class was well-disciplined. During our school visit, teacher absenteeism was not found, and this instance in the first snapshot of week 1 was the only exception. At 9:47am (2nd snapshot), Mr. M returned and began introducing the topic "TENSE" by writing notes on the blackboard in English. The majority of students were on task and well-behaved. We were unsure what language students used in the notebook while they were writing, so we asked some of them after class to minimise disruption. They said they use what language teacher uses for notes, which was English. This was further corroborated by the teachers, who mentioned student notes were in English. Mr. M also emphasised that copying notes was an effective way for students to retain what has been taught, as they can later rely on these notes for revision. Additionally, he added that students have developed the habit of taking notes on important points during lessons.

At 9:51am (3rd snapshot), Mr. M was providing examples of tense and demonstrating the action on a particular example in English, with few students participating in answering and large group listened. By 9:55am (4th snapshot), the teacher was explaining the type of verbs in English and writing on the blackboard. A large group of students were listening, though a few were occupied with other tasks. 1 student was flipping through several pages of his notebook, while the other 1 student was busy writing. Moving on to 9:59am (5th snapshot), Mr. M was proving

examples of regular verbs in English. Students responded with choral answers as teacher asked questions. Mr. M continued writing explanations on the blackboard, while entire class listened and took notes.

At 10:03am (6th snapshot), the teacher was giving additional examples in English and writing on the blackboard with the majority of students listening, 1 student got up and went out without asking permission or speaking to the teacher. By 10: 07am (7th snapshot), the teacher was explaining the principles for forming the past tense in English, with the entire class listening and responding with choral answers. The blackboard continued to be used for writing explanations. At 10:11am (8th snapshot), the teacher was writing on the blackboard and explaining in English, while the majority of students provided choral answers to the examples provided. At 10:15am (9th snapshot), the teacher demonstrated the examples of irregular verbs on the blackboard. Most students listened and took notes. In the final snapshot at 10:19am, the teacher was explaining the use of infinitive structure in the past tense, providing examples and explaining the function of it. Most students listened carefully.

During the observation, no learning aid were used, and the blackboard was used entirely for demonstration. Mr. M did not review today's work or check students' homework. The types of questions asked in the classroom were simple and repetitive, such as "are we together?". He provided additional examples with short answers for clarification. While there were some interactions, the class remained largely teacher-centred classroom. Regarding the languages used for this English class, the teacher used English for most of the class with Swahili used in few instances.

In the second week (9:30-10:10am), the teacher arrived before 9:30 am and asked the RA if he could start 10 minutes earlier than the agreed time (9:40am), as he had other responsibilities at the school. Being the headteacher, he had another meeting after the lesson. He also informed the RA that he was covering a session that was missed on 31st August due to exams, He explained that the quality assurers required all sessions to be taught, as they evaluate students' works to track progression.

Mr. M began the session by reviewing what the students had studied the previous week (the past tense) at 9:33am, which he had not taken at the start of the previous lesson. Students responded by providing choral answers to the questions asked in English. The entire class was engaged, listening and responding as the teacher asked and wrote the blackboard. At 9:37am, the teacher explained the simple past tense while writing on the blackboard. English was used for both speaking and writing. Most of the students were listening, though 2 students were distracted and engaged in other tasks. At: 9:41am, the teacher provided an example of tense and demonstrate the action on a particular example. Few students participate in answering, while the majority listened. At 9: 45am, Mr. M asked the students on the subject and verb in a sentence. One student was selected to answer the question in English, while the rest of the class listened carefully, with the exception of one student who was busy writing, and another one who was looking outside through the window.

At 9:49am, the teacher provided explanations to the class on sentence using S+V+O (Subject + Verb + Object) in the simple past tense. The entire class was listening and taking notes. At 9:53, the teacher engaged the class in creating sentences in the past tense. However, only 3 students raised hands, and one of them was selected by the teacher to answer the question. At 9:57, the teacher wrote five sentences on the blackboard and instructed students to identify the subject and predicate. The entire class copied the sentences from the blackboard into their notebooks.

At 10:01am, the teacher led a class discussion on identifying subject and predicate from the sentences written on the blackboard. Most students were writing and responding to the teacher, while one student was busy reading the notebook. By 10:05am, the teacher was explaining the answers provided by the students on regarding the subject and predicate, with the entire class listening. Finally, at 10: 09am, the teacher selected one student to demonstrate the S+V+O (Subject + Verb + Object) using the sentences written on the blackboard. The entire class watched as she provided her answers.

The teacher used “Are we together?” often after explaining new concepts, such as categorising verbs into regular and irregular, and outlining the rules and principles for

forming regular verbs in the past tense. Regarding the languages used for this English class, the teacher used English throughout the session with Swahili used occasionally. For example, instead of asking "Can you tell me this?" he would say, "Unaweza Kuniambia hili?" Student engagement in week 2 observation was higher than in the week 1, with more students able to ask questions of teachers and other students freely. Additionally, students in private school A demonstrated the highest degree of discipline compared with those in the other two schools.

5.2.2 Content Coverage: Activities Observed in Classroom verse Suggested Syllabus

This section compares the observed learning activities with those suggested in the relevant subject syllabi. To comment on the whether activities observed in the classroom are in line with what is recommended by the government, I will first introduce the relevant syllabus and the student book. As a reminder, the English syllabus referenced here was implemented in 2005 by the Ministry of education and Vocational Training. The syllabus was designed and prepared by the Tanzania Institute of Institution (TIE), replacing the 1996 version. The 2005 version has been reprinted three times in 2010, 2012 and 2016 respectively (MoEVT, 2005a). The student book was published also by TIE in 2018 (Tanzania Institute of Education, 2018).

The Form One English syllabus consists of 16 topics, each with a dedicated chapter covering basic skills in reading, writing, expression and tenses. The learning activities observed in classroom are within topic 9 "Talking about Past Events/Activities", which is further divided into 2 subtopics: "expressing past activities" and "expressing past events"(see table 5-3 below). 12 periods are allocated for the first subtopic and 8 periods for the second, with each period lasting 40 minutes. It should be aware that the number of periods is an estimate. Teachers are encouraged to make full use of classroom instruction time, and any lost instructional time should be compensated for (MoEVT, 2005a).

Table 5-3 Topics Covered in Form One English Syllabus

Topic 1: Listening to and understanding simple texts about a variety of events and situation	Topic 2: Giving directions	Topic 3: Dictionary Use	Topic 4: Expressing personal and group routine habits
Topic 5: Expressing ongoing activities	Topic 6: Expressing likes and dislikes	Topic 7: Talking about one's family	Topic 8: Expressing opinions and feelings
Topic 9: Talking about Past Events/Activities	Topic 10: Expressing Future Plans/Activities	Topic 11: Reading a Variety of texts	Topic 12: Interpreting literary works
Topic 13: Analysing information from media	Topic 14: Writing personal letters	Topic 15: Taking notes	Topic 16: Writing a Variety of texts

The syllabus lists ten teaching and learning strategies for this topic (MoEVT, 2005a, p.21-p.23).

- The teacher to guide students to brainstorm their past activities done in the previous day, previous week, previous months and previous years.
- The teacher to express activities she/he did in the past.
- Students to express their and other people's past activities from a substitution table given.
- Student to write and dramatize dialogues on what they and other people did in the past.
- Read a text on past activities.
- Identify various words showing past activities in groups.
- Write and dramatize dialogues on what they and other people did in the past.
- The teacher to express his/her past events to students using meaningful contexts.
- Students to discuss their past events in groups.
- Each group to narrate their past events in class.

The required teaching material include a text on past activities, a substitution table and a text on past events. By the end of the topic, students should be assessed on their ability to narrate past activities orally and in writings; as well as their ability to narrate past events. The syllabus for teaching the past tense in Form One recommends a variety of interactive and student-centred activities. These include brainstorming past activities, having the teacher express their past activities, and encouraging students to express their own past activities using a substitution table. The syllabus also suggests that students write and dramatize dialogues, read texts on past activities, identify words indicating past activities in groups, and discuss and narrate past events.

During the classroom observations, it was noted that the learning activities deviated from these recommendations outlined in the syllabus. In the first week, the lesson

was largely teacher-centred, with Mr. M providing examples of past tense usage and types of verbs. The students primarily engaged through choral responses and listening, with minimal interactive or group activities. In the second week, while the teacher reviewed the previous lesson and engaged students in identifying subjects and predicates, the format remained predominantly teacher-led. Students continued to respond collectively rather than engaging in the suggested group work or dramatizations. Key syllabus activities, such as using group discussions and writing and dramatizing dialogues, were not observed. Furthermore, required teaching materials like texts on past activities and substitution tables were not utilised, and there was no review of students' homework. However, since we only observed two periods of the lesson, with a total of 12 periods allocated for the topic. As a result, it is unclear how overall content coverage was affected based solely on these two classroom observations. Specifically, the material that was not covered during our observation periods may have been addressed either before or after our visit. Overall, the observed content coverage focused heavily on direct instruction and lacked the interactive and comprehensive approach recommended by the syllabus.

5.3 How Teaching Time is Spent in Community School B

5.3.1 Classroom Dynamic

The classes observed in community school B were two geography lessons, taught by Mr. S who holds a degree and 2 years of teaching experience.

Turning now to the classroom. The first snapshots at 08:33am, recorded that teacher began the lesson by asking students on the lakes available in East Africa. Students responded to the question in English by raising the hands, and the entire class participated by answering the question. At 8:37am, the teacher wrote notes on the topic "SEA" on the blackboard, while students copied the notes from the blackboard to their notebooks. Since we did not want to disturb students during notetaking, we refrained from asking to see their notebook at that time. However, we had the chance to view their notebooks after class, the notes were in English just like what the teacher written. Interesting, after writing notes on the blackboard, Mr. S switched Swahili to explain and emphasise the key points and ask closed ended questions

such as “Do you understand?” These questions were often responded in English with chorus answers from the students.

At 8:41am, Mr. S asked the students the largest sea in the world and making connection to the largest lake in English. A large group of the students responded with a chorus answer, also in English, while a few were busy taking notes from the blackboard. By 8:45am, the teacher was copying the notes from the notebook to the blackboard for the students. The entire class was quietly writing in their notebooks, maintaining discipline throughout.

More copying notes was recorded for another 2 snapshots at 8:49 and 8:53. At 8:49, the teacher was writing the notes on “OCEAN” on the blackboard, and the entire class was taking notes into their notebooks. At 8:53, the teacher continued writing the notes and drew a table of oceans on the blackboard, showing the details of each ocean. While most students were engaged in taking notes, a few were less focused by doing other activities (reading, looking for things in the school bag, gazing around). During the 7th snapshot at 8: 57, Mr. S told students in English to speed up their note taking so that they can continue the discussion. The entire class focused on writing. Following this extended note taking periods, at 9:01, the teacher explained the meaning of ocean and providing the differences between an ocean and a sea, also in English. While a few students listened, the majority remained occupied with notes copying.

At 9:05am, the teacher started to check the students previous work, which involved drawing the world map showing the oceans. Most students were showing their work with two students were still busy taking notes. Finally, at 9:09, the teacher explained how the water covers 71% of the world and using Swahili to emphasise the point written on the blackboard. The entire class was listening, although a few students were occupied with note taking.

The second observation took place a week later. At 8:33am, the teacher introduced the topic of “weather” and asked students how they understood the concept in Swahili. The entire class responded in Swahili. By 8:37am, the teacher was writing on the blackboard on the “weather” and entire class was copying, though 2 students

were not writing, and some noise was heard from outside the classroom. Note-copying of what the teacher wrote on the blackboard continued in the next snapshot (8:41am). However, a few students were not engaged in study related activities, either chatting or staring outside.

At 8:45am, the teacher stood in front of the class, checking students work while reading his notebook and telling students to speed up writing so that he could explain the notes. His teaching method so far has been the teacher writes, student copy the notes, then the teacher explains. Most students were writing the notes on their notebooks, though 3 students are not writing. At 8:49, when students finished copying, the teacher began explaining the concept of weather in English. The teacher used several examples from the last class tour they had taken the previous weekend to Lake Nyasa, where the weather was different from Songea. The entire class listened carefully as the teacher explained the notes from the blackboard.

At 8:53am, the teacher explained to the class the reason for the weather changes in different places in English. Most students were engaged while 3 were still busy copying the notes from the blackboard. By 8:57am, the teacher switched Swahili to clarify the concept of water vapor. The entire class was engaged, participated and listened to the teacher.

At 9:01am, the teacher asked students questions on the importance of weather in Swahili. A large group of students responded with choral answers in Swahili. By 9:05am, the teacher explained the importance of weather and referred to the notes written on the blackboard in English. The entire class listened and provided choral answers when asked if they understood the concept. The last snapshot took place at 9:09am, with the teacher summarising the session and referring to the notes on the board in Swahili. The entire class was listening.

No student-initiated activity such as group discussion, were identified in the observation and students played a minor part in their own learning. The RA noted that the teacher was not very relaxed during the first observation and primarily used English, and students were relatively less engaged. Student attention and engagement increased when the teacher switched to Swahili. When questions were

asked in English, only a few students raise their hands; but when the teacher switched to Swahili, many students raise their hands. In the second week, there was no review of previously taught material, but the teacher had the chance to check student work. During both observations, the teacher relied on simple, repetitive questions (yes or no) and examples to explain topics. Swahili was frequently used to explain and summaries key points.

Below is an example of languages used by teachers and students used observation, taken from RA's fieldnotes.

(They are using) English, and Swahili... You can hear the sentence in English, following by its meaning in Swahili.

Students provide answers with "Yes or No."

Teacher: "Do you understand this? Do you finish your writing?"

Students: "Yes".

5.3.2 Content Coverage: Activities Observed in Classroom vs Suggested Syllabus

Same to the English syllabus I referred in Private School A's observation, the geography syllabus referenced here is also the 2005 version. designed and prepared by the Tanzania Institute of Education. This syllabus has been reprinted three times and is implemented by the Ministry of Education and Vocational Training (MoEVT, 2005b). The Form One geography syllabus has 6 topics in total. It includes concept and geography (1); the solar system (2); major features of the earth surface (3); weather (4); climate (5) and map work (6). In student book, there are 5 chapters, with topics 4 and 5 combined into a single chapter (Tanzania Institute of Education, 2019a).

Unlike private school A, where the activities observed over 2 weeks were within the same topic (past tense); the learning activities observed in community school B covers 2 topics. The Week 1 observation covers in the second subtopic (water bodies) of Topic 3 (major features of the earth surface). There is total 32 periods allocated in this topic. What has been observed in week 2 focus on Topic 4 (weather) with 20 periods were allocated in 3 subtopics (concept of weather, elements of weather and the weather station) (MoEVT, 2005b).

The syllabus for teaching Topic 3.2 (Water Bodies) in Form One outlines several interactive and student-centred activities aimed at helping students define water

bodies, identify oceans and other water bodies, describe the features of ocean floors, and draw maps showing the distribution of continents and water bodies. Suggested teaching and learning strategies include using a physical map of the world to guide students in identifying oceans, organising group discussions to describe features of the ocean floor, and facilitating student presentations on these features (MoEVT, 2005b).

During the first week classroom observations, a deviation from these recommendations was observed. The lesson began with the teacher asking students about lakes in East Africa, engaging the entire class in answering in English. While this partially aligns with the syllabus's recommendation to engage students in identifying water bodies. From 08:37am onwards, the teacher wrote notes on "SEA" and "OCEAN" on the blackboard, which students copied into their notebooks. This continued for several snapshots, indicating a predominant emphasis on note-taking rather than the interactive, group-based learning recommended by the syllabus.

At 08:41am, the teacher made connections between the largest sea and the largest lake, prompting choral responses from students. Although this aligns with the syllabus's goal of making connections between different water bodies, it did not involve the depth of guided discussion and student presentations. By 09:05am, the teacher briefly checked students' previous work on drawing world maps showing oceans, which aligns with the syllabus's map-drawing objective but there was no physical map for students to observe. The teacher explained the differences between oceans and seas and discussed the water coverage of the Earth at 09:01am and 09:09am, using both English and Swahili. These explanations align with the syllabus objectives but were delivered through direct instruction rather than interactive methods. The overall teaching approach in the observed periods was heavily focused on note-taking and direct instruction, with minimal group activities or student presentations.

In summary, the observed classroom activities deviated from the interactive and comprehensive teaching strategies recommended by the syllabus (MoEVT, 2005b). The focus was predominantly on teacher-centred instruction and note-taking, with limited use of the engaging students in group discussions and presentations.

Additionally, there was no mention of the features of the ocean floor in the period we observe, nor were there any group discussions among students, which are part of the third objective that students should learn. However, we are not sure whether this was covered prior to our visit considering there are 32 periods allocated on this topic.

For Week 2, the syllabus for teaching the concept of weather in Form One aims for students to define weather, describe its importance, and understand the relationship between weather and human occupations. It should be noted that it is not feasible to cover all three objectives within a single period. The period I observed primarily covered the introduction of weather and began to address the importance of weather before the session concluded. The specific teaching strategies suggested including guiding students to observe the weather, preparing definitions in groups, presenting their definitions in a plenary session, and discussing the importance of weather and its impacts on the environment (MoEVT, 2005b).

During the second week of classroom observations, there was a deviation from these recommended strategies. The teacher introduced the topic of weather and asked students for their understanding in Swahili, engaging the entire class in the initial discussion. However, the primary method of instruction involved the teacher writing notes on the blackboard and students copying them into their notebooks. This pattern continued throughout the observation, with limited interactive or group activities.

The teacher explained the concept of weather, reasons for weather changes, and the importance of weather using both English and Swahili. While this did engage students to some extent, it was often through choral responses rather than individual or group discussions. The teacher used Swahili to clarify concepts and ask questions, which increased student engagement and participation compared to when English was used. Students responded more actively in Swahili, indicating a higher comfort level and understanding.

Since we only observed two periods, which was not enough time for the teacher to cover an entire topic, it is unclear how overall content coverage was affected from these available classroom observation data. Specifically, the material not covered

during our observation periods might have been addressed before or after our visit. However, the teaching and learning strategies observed did deviate from the suggestions in the syllabus.

5.4 How Teaching Time is Spent in Public School C

The first part of this section moves on to present actual classroom in public school C, specifically examining teacher and student behaviour when English is used as MOI. As pointed out in the methodology chapter, no recordings were available for classroom observation in this school, as the teacher expressed discomfort being on camera. However, she allowed the RA to take notes. The second part aims to comment on content coverage by comparing observed learning and teaching activities with what is recommended in the relevant syllabus.

5.4.1 Classroom Dynamic

The observed classes in public school C were history lessons, taught by Miss A, the only female teacher participating in classroom observations. Miss A holds a degree and has 9 years teaching experience, 5 of which have been at this specific school. We followed the ethics guidelines and relied on detailed notes rather than filming the entire class.

As a reminder, the observation took place on Friday, 24th September 2021, from 9.20 am to 10:00 am. Data from the first observation showed that 90% of the time was devoted to active learning instruction (Figure 5-23 and 5-24). The instructional time is distributed among the demonstration or lectures, discussions, debates, or answering questions. Miss A began the lesson by writing the title, “*development of economic activities and their impact*”, on the blackboard and explaining to the students the meaning of the topic in English (9:23). While a large group of students were listening to the teacher, a few students are unsettled and could see them looking for something (probably notebooks) from their bags.

At 9:27 am, the teacher wrote a subtopic for the day “*handcraft industries*”, on the blackboard. The entire class copied the notes as the teacher wrote them. This practice was frequently observed: the teacher speaks while students copy notes. At

9:31 am, Miss A explained various handicraft activities that was done in pre-colonial Africa, using a mixture of both English and Swahili to emphasise her points. While the majority of students listened carefully, a few students were seen busy copying the notes from the blackboard.

At 9:35 am, Miss A asked student questions on how salt was being made, manufactured and processed in their communities in previous and current times in English. A few students, mostly boys, raised their hands, and one was selected to answer in English while the rest of the class were listening to the answers. At 9:39 am, the teacher wrote methods of salt extraction on the blackboard, and the entire class copied the notes. By 9:43 am, Miss A explained the notes on the salt extraction methods and provided examples in English. The entire class listened to her explanation. At 9:47 am, the teacher provided more examples of how salt was extracted in pre-colonial African societies and places where they were used and reason for each a particular method. Most students were listening with a few taking notes, while two students are seen talking to each other. At 9:5am, the teacher led a discussion on the uses of salt. The entire class participated in the discussion, providing choral answers in response to the teacher's question.

By 9:55 am, the teacher explained the uses of salt in pre-colonial Africa and drew connections to its current uses of salt in the community in English. While the majority of students were listening, a few students were disengaged. three were seen concentrating on their notebooks, and one was busy writing). At 9:59 am, the final snapshots before the class ended, the teacher wrote the uses of salt on the blackboard, highlighting its various functions. The entire class copied the notes from the blackboard.

The second observation occurred a week later, on the morning of 1st October. Miss A began by asking students questions about the previous lesson while writing the day's lesson topic on the blackboard. Students raised their hands to answer the questions, and the entire class listened attentively (9:23 am). At 9:27am, the teacher provided an explanation and summary of the salt-making process and its importance before introducing the new subtopic for the day in Swahili, "*Iron Industry in Africa.*" The entire class listened to the teacher. At 9:31 am, the teacher wrote about the iron

industry in Africa on the blackboard. The majority of students were writing, although three students were busy searching for something in their bags. This continued until 9:35 am, with the teacher writing on the blackboard in English while the entire class copied the notes into their notebooks.

At 9:39 am, the teacher explained to the class on iron making industry using the notes she wrote on the blackboard, switching between Swahili and English throughout her explanation. The majority of students were listening, while a few (3-5) were still copying the notes from the blackboard. At 9:43 am, the teacher asked students about the uses of iron in their communities in Swahili. A large group of students provided choral answers in Swahili, while a few listened to their peers' responses.

By 9:47am, teacher explained various uses of iron in Africa during the pre-colonial times and provided examples of products that were obtained from various communities in Swahili. The entire class was listening. At 9:51, Miss A wrote notes on the uses of iron in pre-colonial Africa on the blackboard, and the entire class copied them into their notebooks,

At penultimate snapshot (9:55am), the teacher provided more explanations in Swahili on the iron uses and its impact on the economy of societies in pre-colonial Africa. The entire class listened to the explanation. Finally, Miss A summarised the lesson and introduced the uses of copper and iron in pre-colonial Africa in Swahili. The entire class remained engaged as she concluded the lesson.

Similar to community school B, the teacher in public school C tends to reply on simple and repetitive questions, providing more examples to clarify the topic without incorporating conceptual questions. Although students can ask questions for clarification and raise hands, the class remains predominantly teacher-centred. Overall discipline is good, similar to community school B but slightly lower than private school A. It is worth noticing that public school teachers use code-switching, mixing, and translation more often than teachers in the other two schools. These strategies are often employed when introducing and explaining new topics and concepts. For example, code-mixing was used to emphasise handicraft activities in

pre-colonial Africa. Additional examples were observed during the second observation, when the teacher used Swahili to explain the salt-making process and the relevance to the new subtopic: "iron industry in Africa". Swahili was also used to ask students how iron was used in their communities. In this activity, students provided choral answers in Swahili. Additionally, it was observed that more boys than girls raised their hands to answer questions. In the semi-structured interview, the teacher said that girls are less confident, and the school has taken some incentive programmes to motivate them talking, such as giving presents to girls who did well in the exams.

In the second observation, 100% of teaching time was devoted to active learning activities, with a majority of the time (80%) allocated to demonstration/lecture and 20% to Q&A. The teacher reviewed what they learned in the previous lesson and summarised the work completed today, and like the previous observation, she did not check any students' work. The types of questions the teacher used remained unchanged. No conceptual questions are used when the teacher asks students questions, but simple, repetitive questions and more examples. In fact, conceptual questions, such as describing the process and explaining answers, barely occurred in all three types of schools. Students can ask questions, although it is a teacher-centred class, which is another similarity shared by all schools.

5.4.2 Content Coverage: Activities Observed in Classroom verse Suggested Syllabus

As with the English and geography syllabus, the history syllabus referenced in this study is also the 2005 version. designed and prepared by the Tanzania Institute of Education. This syllabus has been reprinted twice, in 2010 and 2012, and is implemented by the Ministry of Education and Vocational Training (MoEVT, 2005c). Form One history syllabus is organised into 4 main topics: (1) Sources and Importance of History, (2) The Evolution of Man, Technology, and Environment, (3) The Development of Economic Activities and Their Impact, and (4) The Development of Social and Political Systems. The student's book is designed based on the 2015 syllabus and also published by the Tanzania Institute of Education. It contains 7 chapters, dividing the third broad topic into three subtopics (Chapter 3 covers

Agriculture, Chapter 4 focuses on Handicrafts, Industries, and Mining in Pre-Colonial Africa, and Chapter 5 addresses Trade in Pre-Colonial Africa) (Tanzania Institute of Education, 2019b).

The observations conducted fall into the topic 3.2: handicrafts, industries and mining in pre-colonial Africa, which corresponds to Chapter 4 in the student book. This topic is allocated with 5 periods. Upon completing these section, students should be able to explain the meaning of handicrafts, industries, and mining; differentiate the types of industries and their advantages in pre-colonial Africa; and explain the uses of different types of minerals in pre-colonial Africa.

The syllabus for Topic 3.2 "Handicrafts, Industries, and Mining in Pre-Colonial Africa," outlines specific objectives and teaching strategies. These objectives include enabling students to explain the meaning of handicrafts, industries, and mining; differentiating types of industries and their advantages in pre-colonial Africa; and explaining the uses of different types of minerals. Suggested teaching strategies include using question-and-answer method, guiding students in individual research and group discussions, facilitating class presentations, and employing sketch maps to enhance understanding.

In the observed lessons, Miss A introduced the topics by writing them on the blackboard and explaining them in both English and Swahili. While she frequently used the question-and-answer method, encouraging some student participation, the lessons remained predominantly teacher-centred. Miss A explained various activities such as salt extraction and the iron industry, provided examples, and led discussions on their uses in pre-colonial Africa. However, individual research, group discussions, and student presentations were absent. The use of visual aids like sketch maps, as suggested in the syllabus, was not observed. Instead, the focus was on note-taking and direct instruction, with students copying notes from the blackboard.

Interestingly, according to the student book, "salt making" is supposed to be introduced after "ironworking." However, this sequence was reversed in our observations, with the teacher introducing the salt-making process in the first week and the iron industry in the second week (Tanzania Institute of Education, 2019b).

Overall, the observed lessons partially aligned with the syllabus objectives, particularly in explaining key concepts and using questions to engage students. However, the lack of interactive and student-centred activities such as group discussions and presentations indicate a deviation from the recommended teaching strategies. It is important to note that only two periods were observed, which is insufficient to cover this subtopics within the allocated five periods. It is possible that some of the recommended strategies and content areas were addressed before or after the observed sessions.

Together these results provide important insights into classroom dynamic across three classrooms. Issues regarding to teacher centred approach is widely seen in three schools, however, compared with community school B and public school C, private school A has the most interactive classroom even though it is still largely teacher centred. The comments below illustrate what RA has noticed.

Teachers (in private school A) are giving oral instruction/lecture and students are participating by taking notes, answering pop up questions, and providing further examples to some instances. (Private school A is) More interactive than community school B, teachers use more open-ended questions. Students are encouraged to answer and discuss questions. No group activities. Teachers using English during lectures most of the time; students use English to answer questions most of the time (fieldnotes from RA, 28/09/2021)

The teacher engaged the students by giving them chances to answer the questions individually and make examples sentences in the given structures. Unlike other schools (community school B and public school C), the teacher at private school A used English in his teaching and it was interactive teaching. Students participated in their learning, however the method used was lecture style. Students participated in adding more examples and answering the teacher's questions. The number of students in the class allows him to ask questions. Teachers (in public school C) are using lecture method; they write the notes and explain to the students the meaning of the notes they have just wrote (Second Interview with RA, 04/10/2021)

5.5 Discussion

This chapter explores the findings in relation to the OTL framework and wider literature on learner centred pedagogy.

The discussion section is organised by the Research Question 1 through classroom observation data: "How does Tanzania's MOI policy affect student OTL in terms of instructional time, content coverage, and quality of instruction in secondary schools?" The primary focus is on the quality of instruction. Content coverage data was obtained by comparing observed learning and teaching activities with government issued syllabi (MoEVT, 2005a, 2005b, 2005c). Instructional time was assessed using the Stallings Classroom Observation System (Stallings, 1980; Stallings et al., 2014) and fieldnotes to explore how teachers use classroom time.

5.5.1 Dominance of Passive or Transmission Learning Activities

One of the main findings to emerge from the analysis is the dominance of teacher centred, passive or transmission learning activities in the classroom, such as listening to lectures and demonstrations and copying from the board. The findings from this study make several contributions to the current literature exploring student experience in multilingual environments when international languages are used as MOI. First, the finding reinforces the understanding that translanguaging can enhance the learning experience by bridging linguistic gaps between student native language and international languages (Saleem et al., 2023). However, this research also points out the time management challenges that teachers face when implementing translanguaging strategies. This often means that "teacher talk involves much more 'redundancy' than is normal" (Clegg, 2022, p.165), as teachers might repeat or clarify information to ensure understanding across languages.

Second, my research is consistent with Erling et al.'s (2021) argument that language-in-education policies prioritising English is more likely to promote traditional, teacher-centred pedagogical methods; therefore, restricting student opportunities to talk with peers and teachers. Third, my research offers deeper insights into the barriers of fostering productive classroom dialogue, particularly in contexts where students are still developing proficiency in the MOI. Finally, the findings highlight how the use of English as the MOI can negatively impact OTL by limiting student interaction and engagement, reducing opportunities for corrective feedback, and thereby restricting their overall learning experience and education equity.

These insights are particularly relevant to policymakers who might need to reflect on current practices, allowing and encouraging translanguaging strategies in multilingual Tanzania. Additionally, they should support Makalela (2015)'s recommendation to provide systematic pre-service and in-service training for student teachers and teachers if the MOI policy cannot be changed in the near future. The findings gained from this study may be of assistance to the government officials who aim to move towards achieving and monitoring Sustainable Development Goals 4 (quality education) (UNESCO, 2021; United Nations, 2022) by highlighting the inseparable nature of MOI and the quality and equity of education. Findings presented here will also be of interest to teachers, parents who might be influenced by the monoglossic ideology, such as participants in Godfrey's (2014) discussed earlier in literature review chapter, who undervalue the role of L1 in facilitating successful L2 learning and overall academic achievement.

- Listening to Lecture/Demonstration

During the 6 classroom observations (2 in each school), at least 90% of the class time is spent on learning activities (both active and passive instruction) across all three schools, which is within Stalling Classroom observation system's suggestion that over 85% of class time should be devoted to instruction and classroom management should be limited within 15% (Stallings et al., 2014; The World Bank, 2017a). In the classroom, English is predominantly used as the MOI, while Swahili is employed to clarify concepts that students struggle to understand in English. This result supports previous research from Norro (2022a, 2022b) who examines Namibian mainstream primary teachers' practices in the multilingual environment, finding that translanguaging strategies, such as peer translation, code switching, are used in the classroom. However, these strategies are often implemented in an ad-hoc way rather than through the recommended pre-planned and systematic pedagogical approaches. A possible reason for the ad-hoc manner might be the long lasting monoglossic ideology; and code switching can be seen as a way to disrupt the norm of monolingual language (García et al., 2017).

Moreover, the observed classrooms demonstrate limited interaction among students themselves and between students and teachers. The reliance on English, a

language in which students may have limited proficiency, restricts their ability to actively participate in discussions or ask questions. Additionally, it has been found that teachers use a limited repertoire of pedagogies in facilitating student learning, which might limit students' full use of their linguistic repertoire. This finding broadly supports the work of other studies (Norro, 2022a, 2022b; Ouane and Glanz, 2011; Manocha and Panda, 2015) in this area, which link the subtractive multilingual education approach to student learning experiences characterised by repetitive learning, memorisation, and copying written material from the blackboard.

One of the possible reasons for limited student talk in classroom might be related to teachers' concern about covering the curriculum within the allotted 40 minutes lesson. As some teachers mentioned during the fieldwork, a teacher dominated approach is an easy way to achieve this goal, even though they acknowledged the benefits of student centred approach. The present study aligns with the findings of Palmer (2009) and Norro (2022b), which demonstrate that time constraints linked with translanguaging strategies often cause worry among teachers, as they might fear being unable to meet deadlines when using multiple languages in class. In addition, the study contributes to the existing literature by confirming that "language-in-education policies promoting the use of English increase the likelihood of a reliance on teacher-centred, traditional teaching methods (Erling et al., 2021, p.92)". The reliance on teacher-centred methods also has implications for OTL, as these methods limit opportunities for interactive engagement and meaningful student participation, both of which are essential for enhancing the quality of instruction. The findings suggest that current Tanzanian language policy should be re-evaluated to better support interactive and student-centred teaching practices.

Another possible reason for dominance of passive or transmission learning activities might be due to student limited English proficiency. As also suggested by Erling et al. (2021), "enabling such (productive classroom) talk, while challenging in all contexts, is particularly difficult when students are developing competence in the language of instruction (p. 80)". This can be seen from classroom observation and interviews with teachers, which show that student's attention and engagement increase when the teacher uses the Swahili rather than English in the classroom. When the teacher asks questions in English, few students raise their hands; however, when Swahili is

used, many students raise their hands and are eager to participate. This observation also corroborates with interview findings from both students and teachers in the previous chapter, indicating that positive classroom climate, where students feel confident, comfortable, and less excluded, is more likely to happen when a familiar language is used as the MOI.

The study contributes to our understanding of the connection between OTL (quality of instruction) and student engagement, as evidenced by increased student interaction and participation, such as raising hands to answer questions. Specifically, it demonstrates that increased student participation in classroom discussions may be a key indicator of higher instruction quality. More student talk could indicate active engagement and deeper cognitive processing, which are crucial for effective learning. Additionally, this aligns with Bloom's (1976)'s work, as one of the early researchers focused on explaining variation in student achievement, suggesting that there is high possibility for students to learn when they are actually paying attention and engaged during that time. Therefore, beyond affecting the quality of instruction, the current classroom practices also negatively impact instructional time by reducing engaged time.

However, although some teachers mentioned during interviews that they allow students to discuss with peers in any language (if time permits) and report back in English, this practice was not observed during the classroom observation. This approach could have increased the possibility of student talk, where students can use dialogue to think and reason together with teachers, and foster both knowledge development and language skills (Rubagumya et al., 2022). Most observed teachers would switch to Swahili as the MOI or use translanguaging practices when they noticed students were quiet and less engaged. This view was echoed by most students who said they feel bad when they have difficulty understanding the content and would prefer teachers use code-switching, mixing and translation. This also accords with earlier observations, which showed that primary strategy for class interaction is class call and response method (Brock-Utne and Holmarsdottir, 2004a) or remaining silent or with rote repetition (Kiramba, 2018). The insights gained from this study can improve our understanding of how the previously mentioned pedagogical methods impact OTL. The reliance on these methods may result in a

passive learning environment where students are not encouraged to actively contribute, question, or explore concepts in depth, thereby negatively affecting the quality of instruction.

Classroom interaction

Prior studies have noted the importance and benefits of classroom interaction in drawing student attention, increasing their participation, facilitating knowledge construction, comprehension and improving academic achievement in formal assessments (Alexander, 2015; Erling et al., 2021; Vygotsky, 1978). Vygotsky (1978) highlights that learning is a deeply social process and it takes place through the interactions or dialogues students have with their peers, teachers, and with other more knowledgeable other/experts that they might not be able to learn on their own. This interaction is vital for students to progress within their Zone of Proximal Development (ZPD), where they can perform tasks with guidance that they could not do alone. The three dimensions of OTL discussed in this research, content coverage, instructional time, and quality of instruction, are essential for facilitating students' progression within their ZPD. OTL may help to ensure that students receive the necessary instruction and support to maximise their learning capacity within their ZPD, potentially leading to more effective and equitable learning outcomes.

In this case, African languages play a significant role in enhancing this classroom interaction (Tikly and Barrett, 2011). Classroom interaction might be able to serve as an indicator of OTL, particularly in terms of the quality of instruction and the level of student engagement. Students might be more likely to actively participate in classroom activities when they can use the language in which they are most comfortable with. As a result, pedagogy and curriculum should be designed to emphasise interaction between learners and learning tasks. Sedova et al., (2019) have identified a strong relationship between student participant and their literacy achievement. The study found that the more a student talked in class discussions, the better they performed in reading literacy test. Moreover, Rubagumya et al. (2022) further suggest that the “interaction is possible only when students are enabled to use a language that they are more familiar with (p.171)”. Consequently, teachers should be a facilitator and create a learning environment that maximises the learner's ability to interact with each other through discussion, collaboration, and feedback and then maximising

student OTL. However, the findings point to a strong tendency towards a teacher-centred approach with students playing a minor or small part on their own learning and most of the times answers were choral. Halliday (1993) has shown that shifting between more and less formal registers is a defining feature of classroom discourse in secondary schools in monolingual settings. Research (Erling et al., 2021; Guzula et al., 2016; Makalela, 2015, 2019) in sub-Saharan Africa further reveals that in multilingual societies and education systems, this shift inevitably involves moving between languages used for social communication and the target language employed for academic learning. Limited student talk could mean fewer opportunities for students to practice and become proficient in these shifts. This restriction can make it more difficult for students to understand and engage with formal, abstract registers because they might lack the practice in bridging these with their everyday experiences.

Questioning and student and teacher reasoning together:

During the classroom observation, the types of questions the teacher asked in the classroom mainly consisted of simple, repetitive queries (*Are we together? Do you understand?*), often supplemented with short-answer examples for clarification. Conceptual questions, such as those requiring descriptions process or explanations, were not widely used. As a powerful tool in teaching, questioning is vital for developing students' application, analysis, evaluation, and synthesis of new concepts and fostering communication and critical thinking skills (Almeida, 2012; Nappi, 2017). However, the current pedagogical approach observed in these classrooms restricts students' development of these essential skills, which are crucial for their future success.

There was also limited evidence of student and teacher reasoning together. Activities such as group discussion (among students) and debate were not seen frequently during the classroom observation, which can directly affect the quality of instruction, a key dimension of OTL. The absence of these interactive learning strategies limits the opportunities for students to apply knowledge in new contexts or to engage in complex problem solving. This is crucial because interaction with peers and teachers allows for the co-construction of knowledge, a process where students deepen their understanding through dialogue and collaboration. Therefore, the strong focus on

passive learning activities observed in the classroom directly impacts the OTL by limiting the chances for students to engage in reasoning with their peers and teachers.

As discussed in Chapter 2, both providing corrective feedback and questioning students are key factors among OTL particularly from dimension of quality of instruction and are well supported by empirical research (Brophy and Good, 1984; Gersten et al., 2009; Walberg, 1986). Although the benefits of closed ended question should not be ignored, such as their role in building a solid foundation of knowledge and knowledge construction and lead to high level of reasoning (Fusco, 2012; van der Wilt et al., 2022; Zucker et al., 2020), the lack of variety in questioning might restricts student opportunities to ask questions back and limits their engagement and depth of learning. This also makes hard for teachers to understand their area of confusion (Almeida, 2012). In the same spirit, providing corrective feedback can also addresses individual learning needs and helps students understand their strengths and areas for improvement. When English is used as MOI, the possibility of those two key indicators (providing corrective feedback and questioning students) being effectively present in the classroom diminishes. This reduction of the two factors can undermine the effectiveness of instruction. Furthermore, limited interaction and feedback not only affect the quality of instruction but also reduce engaged time, which is crucial for effective learning. When classroom activities are predominantly passive, students are less likely to be engaged, which potentially negatively impacts their learning experience and outcomes. Consequently, the second (instructional time) and third dimension of OTL (quality of instruction) are undermined while using English as MOI.

- Copying from the Board

An additional indicator of the dominance of passive, transmission-based learning observed during classroom observation is the substantial amount of time students spent copying notes from the board. Although there are many overlaps of implications associated with the two main findings: listening to lecture/demonstration and copying from the board. It is necessary to discuss them separately, with the later focusing specifically on student actions.

Following the Stalling Classroom observation guidance, the main objective of copying from the board “is to transfer the text on the board verbatim to the students’ paper or copybooks (2015, p.16)”. Copying notes from the board as one of the passive instruction activities was particularly prevalent in community school B during the first week, where 40% of the observed time was spent on this activity. In the second week of observation, the percentage of time devoted to copying notes decreased to 20%. It is recommended in an effective classroom that passive instruction should be within 35% (Stallings et al., 2014). This does not mean there was no notes copying activities in other two schools, it is due to the Stalling Classroom observation guidance with a focus on how teacher use time. In spite of its limitations, the observation tool along with its field notes adds to our understanding of both teacher and student behaviours.

Copying from the board often occurs after teacher introduced new topics or provided clarifications. Teachers might ask students to speed up so they can continue the next activity such as discussion. Upon reviewing the students’ notes after class, the RA observed that all the written content was in English, even though the teachers often provided verbal instructions in Swahili. The findings reported here shed new light on the original definition of code mixing and switching proposed by Brock-Utne and Holmarsdottir (2004), who did not specify whether the changes or switching can occur in spoken or written language, or just spoken language.

The findings will be of interest to Tanzanian teachers and educators in other multilingual contexts, where changes to the MOI policy may not happen in the near future. Teachers can utilise students’ L1 to facilitate learning without violating the official requirement for English as the primary language of instruction. This study lays the groundwork for future research into how the translanguaging strategy of speaking in L1 and writing in L2 can play a crucial role in bridging the linguistic and facilitate student learning. By recognising the power of students’ linguistic repertoires and the multimodal nature of multilingual classrooms (Blommaert, 2010; Erling et al., 2021; Halliday, 1993), this approach has the potential to significantly maximise students’ OTL. Educators, policymakers, and curriculum developers will particularly benefit from these insights, as they seek to implement more inclusive and effective teaching strategies in multilingual classrooms.

Spending too much time on copying notes from board is often associated with rote learning. An implication of this finding is that students are likely to become passive recipients of knowledge (Bhattacharya, 2022). As a widely classroom practice observed in this research and worldwide, there are several reasons a teacher might ask a student to copy something down (Foley and Masingila, 2014). For example, Castelló and Monereo (2005) point out that note-taking acts as a tool for recording and storing information that students can later review. Secondly, beyond mere storage, effective note-taking can enhance comprehension and deeper learning (Chang and Ku, 2015). Moreover, note-taking can serve as a formative assessment tool, where students' notes reflect their understanding and the effectiveness of their learning strategies. However, as a form of passive instruction categorised by the Stalling Classroom Observation system, this practice has received a lot of criticism such as leading to surface-level learning and cultivating passive and uncritical learning habits (Bhattacharya, 2022).

Note-taking while listening can be a complex and cognitively demanding procedure, using L2 can be a uniquely challenging task. Asaly-Zetawi and Lipka (2019) asserted that the first language was the most important variable in predicting note quality. However, this is not a criticism of the current note taking practice observed in this research, it will be of interest to teachers who might consider a change of language used for note taking and allow students to take notes in language they prefer to maximise the benefits of translanguaging (Parkes and Harris, 2002). Future research can also consider how “Speaking in L1 and writing in L1 or L2” can impact OTL through student self-reported survey or interviews.

Previous two sections have discussed the reasons, significance and implication of the dominance of passive or transmission learning activities when English is the MOI. The current MOI policy does not promote meaningful student talk with the potential to deprive them the opportunity to interact with peers and teachers. This classroom observation data provides comprehensive investigation to the connection between OTL and MOI which is not researched extensively in previous research by demonstrating how the MOI influences various dimensions of OTL, including instructional time and the quality of instruction. Specifically, the use of

English can lead to a teacher centred approach which is against what syllabi recommended. As presented earlier in the finding chapter, I compared learning activities with relevant syllabi issued by the Tanzanian government to understand the content coverage. The observed lessons partially aligned with the syllabus objectives, however there was a clear deviation of recommended student centred strategy with the reality. One subtopic was not covered (the features of the ocean floor, the last subtopic of the topic we observed) before moving on to the next topic. However, this result should be interpreted with caution, as we found that teachers have the autonomy to reverse the order of topics and allocate periods differently from what the syllabi suggest, as long as they complete the content by the end of the term. This finding echoes what they indicated in the interviews. This flexibility might allow teachers to respond to immediate classroom dynamics, such as student interest or external events that might make certain topics more relevant at specific times.

Taken together, through six classroom observations over two weeks, I observed that a dominance of the teacher-centred approach can negatively impact OTL. This can affect instructional time and quality of instruction by reducing student engagement, limiting opportunities for student talk and corrective feedback, and creating a less supportive classroom environment. The finding is in line with previous research indicating a teacher-centred approach with choral responses, repetition is typical in contexts where the MOI is not the learners' first language (Afitska et al., 2013; Bunyi, 2005).

Although some translanguaging strategies were used (such as scaffolding, language alternation and paraphrasing), the classrooms observed demonstrated a monoglossic ideology which may hinder the development of critical thinking and problem-solving skills, essential for students' academic growth and success. Just like Rubagumya indicated in the preface of the book (2022, p.xx) *Multilingual Learning and Language Supportive Pedagogies in Sub-Saharan Africa* that “languages are not a problem; they are useful resources needed for meaningful learning to take place and African children, like all other children in the world, have the right to use their languages in education”. Systemic and pre-planned translanguaging strategies that recognise the power of students' linguistic repertoires, such as allowing the use

of Swahili for peer discussions and reporting back in English, should be incorporated and officially encouraged (Norro, 2022a, 2022b). These strategies can improve the overall learning experience and enhance OTL in a multilingual context.

However, this current study is limited by the small number of teachers who participated in the observation. The varying levels of interaction observed in each classroom—where private school A exhibited the highest level of interaction, followed by community school B, with public school C being the least interactive—could be influenced by differences among teachers, such as their teaching experience. Despite these limitations, the study significantly contributes to the understanding of how teachers in each school allocate classroom time and whether, as well as how, translanguaging strategies were used.

Chapter 6 Finding from Disaggregate Data

Introduction

This chapter disaggregates data to compare differences among the three school types—community, private, and public—addressing the second research question: *How do the effects of MOI on OTL vary by school types, and what may account for this variation?*

By disaggregating the data, specific trends and variations that may not be apparent in the aggregated data can be identified. A key finding is that more students in the fee-paying schools (school A and B) appear to be purchasing access to extra English language instruction. Understanding these variations may be important for informing educational policies that could better address the specific challenges and needs of each school type. Table 6-1 below demonstrates the corresponding data collection and analysis methods.

Table 6-1 Data Collection and Analysis Summary

Research Question	Data Source	Methods
2. How do the effects of MOI on OTL vary by school types and what may account for this variation?	Fieldnotes; Student and teacher surveys; Interviews	Compare survey results, and interview insights across school types.

The most obvious finding to emerge from the previous two chapters' analysis is that all three perspectives included in the OTL (content coverage, instructional time and quality of instruction) were negatively affected by the switch of MOI. However, fieldwork identified that the extent of this impact varies by school type. Specifically, some schools appear to be less affected due to their access to additional assistance and support mechanisms. For example, fee-paying pre-Form One English courses provided by external organisations, the availability of Morning Speech Programme and Debate Clubs, and extra off-class tutoring provided by teachers in their personal time. These resources might help mitigate the challenges associated with the MOI switch, thus offering student a comparative advantage in adapting to an English-medium environment.

6.1 External Additional Assistance

Upon analysis of the survey data, it is apparent that nearly half students (99 out of 234 students; 42.3%) who participated in the research acknowledged that transitioning from primary to secondary schools is challenging. However, the level of challenges varied by school type (Table 6-2 below). In private school A, approximately one-third of students (4 out of 12; 33.3%) reported finding the transition challenging, while 28% of students in community school B agreed with this statement. Similarly, 30.4% of students in private school A (7 out of 26) expressed difficulty with the transition. In contrast, the percentage is much higher in public school C, where 45.3% of students (88 out of 197) reported that they found the transition to secondary school challenging.

Table 6-2 I find it is challenging to transform into secondary school from my primary school.

Type of secondary school			Frequency	Percent	Valid Percent	Cumulative Percent
Private School A	Valid	strongly disagree	2	14.3	14.3	14.3
		disagree	6	42.9	42.9	57.1
		neutral	2	14.3	14.3	71.4
		agree	4	28.6	28.6	100.0
		Total	14	100.0	100.0	
Community School B	Valid	strongly disagree	8	34.8	34.8	34.8
		disagree	8	34.8	34.8	69.6
		agree	5	21.7	21.7	91.3
		strongly agree	2	8.7	8.7	100.0
		Total	23	100.0	100.0	
Public School C	Valid	strongly disagree	42	20.3	21.3	21.3
		disagree	58	28.0	29.4	50.8
		neutral	9	4.3	4.6	55.3
		agree	77	37.2	39.1	94.4
		strongly agree	11	5.3	5.6	100.0
		Total	197	95.2	100.0	
	Missing	System	10	4.8		
Total			207	100.0		

Similar, about half students reported that (111 out of 230 students, 48.3%) that they believe using English as the medium of instruction is one of the challenges in transitioning to secondary school. The responses differ by school type, with more than half (51.0%) students from public school C agreeing with the statement, followed by students from private school A (42.9%) and community school B (27.3%) (Table 6-3).

Table 6-3 I think using English as the medium of instruction is one of the challenges in transitioning to secondary school.

Secondary school.						
Type of secondary school			Frequency	Percent	Valid Percent	Cumulative Percent
Private School A	Valid	disagree	5	35.7	35.7	35.7
		neutral	3	21.4	21.4	57.1
		agree	6	42.9	42.9	100.0
		Total	14	100.0	100.0	
Community School B	Valid	strongly disagree	3	13.0	13.6	13.6
		disagree	12	52.2	54.5	68.2
		neutral	1	4.3	4.5	72.7
		agree	6	26.1	27.3	100.0
		Total	22	95.7	100.0	
	Missing	System	1	4.3		
	Total		23	100.0		
	Public School C	Valid	strongly disagree	20	9.7	10.3
disagree			64	30.9	33.0	43.3
neutral			11	5.3	5.7	49.0
agree			93	44.9	47.9	96.9
strongly agree			6	2.9	3.1	100.0
Total			194	93.7	100.0	
Missing		System	13	6.3		
Total			207	100.0		

One possible reason why students in certain school adapt better than others, as indicated by students, teachers and the RA, is their access to extra English tutoring, such as Pre-Form One tutoring, or attendance at private primary school. Students who attended private English primary schools or Pre-Form One programmes said the “English-speaking environment” in secondary school was relatively easier to fit into. This prior exposure appears to lay a good foundation for future learning and facilitates their understanding in secondary level subjects taught in English. The pre-Form one course is not compulsory, students can choose to participate voluntarily after finishing primary education, though they must pay tuition to enrol. The privately-funded programme, which runs from mid-September to December, aims to help bridge the transition for students moving from Swahili-speaking government schools to English speaking secondary education.

When asked about how using English as the MOI affects their study generally, some students in private school A expressed that they did not have difficulties in understanding the content. For instance:

Students can start learning preform one course if they are able to. I did it. Also, the primary school teachers can help teaching students with no financial ability in teaching them language skills to be able to settle in form one. (Male student, private school, AS2, 14/20/2021).

No, I don't get any difficulties, and it (English) will help me in my future career. I learned English in primary school and my parents asks me to participate in pre session one course. (Female student, private school, AS5, 14/10/2021).

I am not affected because is the language I use in all subjects, the pre-sessional one course helped me a lot (More vocabularies, more confident) (student open ended, 30/08/2021).

Approximately half of students from private school A indicated from their survey responses that they have participated in the pre-sessional English course.

Additionally, two students from community school B also indicated that they have joined the course, with one student benefits from longer English exposure from studying at a private primary school.

I was not surprised (being in an English-speaking environment) when I joined form one as I knew exactly what it will be like. After my final examination at primary school, I joined a pre-form one class. It (pre-sessional English course) allows me to know more about what feels like English environment, I could not understand everything when I started in September, but it becomes better. These three months are very useful for my secondary school (Female student, BS5, community school, 19/10/2021).

I was in public primary school from class 1 to class 2, then I was transferred to private primary school where they are using English as medium of instruction. Unlike others, the language was not a problem as I was exposed to the language from private primary school I was attending, and my parents paid me for the pre-sessional course (Male student, BS1, community school, 18/10/2021).

Further probing how the fee paying English course helped him, one student clarified:

More confident to speak up, less anxious, knowing what is expected from me. Well, using English as MOI is not easy, but all helps from pre-sessional tutoring, our morning speech matter. I know more words, more confident to speak up.

Interestingly, some students from public school C also reported receiving Pre-Form one private tutoring. For example,

No there is nothing new, so no difficulties to my side...I felt good there was no difference from the place that I was before in primary school (had 9 years of using English language before secondary education) (Female student, public school, CS9, 25/10/2021).

No, I faced no challenge at all. Others face challenge because they are not used to English language from primary school as I was. (Female student, public school, CS1, 21/10/2021)."

No, I didn't face any challenges as I had already attended preform one which prepared me well for form one environment, subject and secondary education in general, nothing was new when I joined form one (Male student, public school, CS10, 25/10/2021)."

Given that Pre-Form One is a fee-paying programme, it then inherently favours students from household that can afford this additional support, leaving those from economically disadvantaged backgrounds without the same opportunity. This inequity was noticed by one student, who suggested similar programme should be made available to those who cannot afford it. She said:

"I think providing the training of Pre-Form one first, for the people who are from public schools because they cannot use English at all, and teachers to use simple language to them for their understanding and to add more levels as days go. For us from private schools we know English compared to the students from public schools." (Female student, CS9, 25/10/2021)."

Another student shared she felt happy studying using English as MOI, because she was already having the knowledge of English language prior to transitioning into secondary school, thanks to her private tutoring before joining Form One. It should be noted that some respondents from the public school (CS 1, 7, 9 and 11) also mentioned they were enrolled in Pre-Form tutoring.

I started learning English from my childhood, but formally from KG1 (Kindergarten 1). I was enrolled in private primary school. We were learning numbers, alphabets, and songs (students provide an example of Mango tree song they used to sing when in primary school). (Female student, CS11, 25/10/2021).

Commenting on the benefits of early English exposure, the RA has also admitted that Pre-Form One can help students and ease the challenges of transitioning into secondary schools.

I had a talk with teachers and students, most students in private A have been enrolled in some forms or private tutoring, such as pre-form One. About half participated in community school B. There are some in public school C attended but the percentage is much lower compared with other two schools, because of the large number of students. (First Interview with RA, 30/09/2021).

Many students I met and talk to during the interview are speaking of the importance of having the preform one course for the students transitioning from primary school because of language they use at school and support that they are getting for language learning. Students that attended preform one had no

difficulties in settling at secondary education compared to those that did not attend any training after completion of primary education. Most teachers experienced have longer teaching experience there (private school A) than the other two school I have visited. (Third Interview with RA, 15/11/2021)

6.2 Internal Additional Assistance

In additional to the pre Form One programme, which occurs before the start of secondary education, other forms of additional assistance are provided once students begin secondary education in two of the observed schools.

They (Private School A) have a "no English no service" board (on the headmaster's door) as well (as Community School B), also they had "morning speech" programs. In these programs there is a schedule for all students to speak in front of others (in the school campus) every morning, a student has to speak anything he/she has studied in English language. Topics of the speech are chosen by students; they can say anything they like as long as it is in English. However, I was not there when students made the speech as the school visits were normally from late morning or afternoon. In addition to the morning speech, community school B has their own grading system (higher grading system compared with national system) (see table 3-1 from the methodology chapter) and weekly tests. (First Interview with RA, 30/09/2021).

On the contrary, since there are over 200 Form One students in public school C, there is no morning speech programme in the public school C, which is available at private school A and community school B.

No morning speech program in public school C, most government schools do not have it because they have a huge number of students (Third Interview with RA, 15/11/2021).

Moreover, through interviews with teachers revealed that organised English tutoring is offered for new Form one students, with some teachers using their personal time to offer extra assistance. However, whether this tutoring is free of charge or not depends on school types.

Students needs to be supported to settle at secondary education. For us (private school A), before starting the form one subjects, we dedicate the whole month for language learning to all new form one students. The whole month students are taught the basic of English language and not any other subject that can help them. English language also has more sessions in the school compared to other subjects like chemistry and physics to provide more support to students in learning other subjects as well (Male teacher, AT1, 15/10/2021).

I sometimes use students personal time to provide extra teaching outside classroom hours, because I cannot use only class hours for some of my students. During teaching, I pass at every learner, ask them some questions about the session I am teaching and know their understanding based on the answers they are providing. When I find a student did not understand I tell them to follow me at my office when they free time, I ask them some question to see how I can help then provide them with a task to see if they get it the second time. (Male teacher, AT2, 15/10/2021).

If students do not understand, we (and other teachers) will use some of our off class time to support “slower” learners. (Male teacher, AT3, 22/06/2022).

Teachers told RA that, in private school A, they receive payment for providing off class tutoring, however, they did not reveal how much. On the other hand, in order to help students who cannot understand the content properly when using English as the MOI, teachers from community school B also have to use their own time to support students, but often without extra payment. As they are closely integrated with the community, teachers at Community School B could not ask parents for additional contributions in the same way that private schools would. For example, one teacher mentioned:

For the government (funded/managed) schools; before the new policy (announced in 2015), students themselves are going to contribute for the teacher as they teach extra time but here a community school no(t) anymore. It is a community based (school) but since our boss died nothing contributed from local community though at the previous, they just contributed a little.

The nature of the people I work with, is students from poor family who need equality and quality education regardless of their economic challenges. So, it is my hopes to help such people. In community school there is not many pressures from the leader, I leave a chance for a teacher to use his/her freedom to fulfil their responsibility. (Male teacher, BT1, 15/06/2022)

The school board guides parents to pay for extra time not much money in such but can be helpful for the teachers. The policy and laws are here but remember the government needs good performance of school... even government schools do so. The problem is like volunteering, if we argue on it we will be chased away and others can take our part. To some school is okay but the school based on community it is hard, my friend. No (any) payment for extra but we do this because we love our students, and we want them to have a good result(s) at the end. (Male teacher, community school, BT3, 15/06/2022)

Nevertheless, in private school A receive compensation for providing "remedials" or additional instructional time beyond regular timetable for Form two and Form four students. In contrast to teachers in community school B who sometimes provide

private tutoring at their own time with barely no extra income. Evidence was not found to suggest that teachers in public school C face a similar expectation of unpaid extra tutoring. However, teachers mentioned that additional lessons are available for all students in public school C before annual exams, but they did not specify whether students are required to contribute financially to attend group tutoring.

On top of extra English lessons and an English Speech Programme, private school A also offer rewards to the top performing students at the end of the academic year. While it is not clear whether these awards are funded through school budget or teacher's own pocket. Similar practices are observed in public school C, where some teachers provide rewards to the best students as well, although these are typically funded from their own expense.

School is providing gifts for students(Best performing students) who are doing well at the end of each academic year (Second interview with RA, 04/10/2021).

6.3 Discussion

This chapter aims to address the second research question through disaggregated survey data and interview findings: "How do the effects of MOI on OTL vary by school types (community, private and public schools), and what may account for this variation?

The analysis reveals that while the current MOI negatively impacts student OTL across all three schools, the extent of this impact varies by school type. Public school C experiences the greatest challenges, community school B falls in between, and private school A is the least affected, relatively speaking. This variation could be attributed to differences in resources and internal and external support systems across the different school types.

The findings are consistent with previous research (Babaci-Wilhite, 2015; Pinnock, 2009; Trudell, 2016a), which suggests that the use of non-local languages or international languages as MOI can significantly hinder students' ability to build a

strong learning foundation. This challenge is particularly obvious for students from the least developed districts, as well as those from poor, rural households, who are most vulnerable to being negatively impacted. In addition, the research provides a deeper insight of the connection between MOI and the broader social equity issues that arise from this relationship. MOI is not just a linguistic choice; it has profound implications for students' learning opportunities and overall educational equity (Tai, 2022; Xu and Fang, 2024). The insights gained from this study may be of assistance to policymakers when it comes to educational resource allocation and support mechanisms provision to make sure secondary schools particularly the public schools, are in a better position to address the challenges posed by using English as MOI.

In this research, the Pre-Form One English course is referred to as the external assistance, because it is conducted before students enrol into secondary schools. Access to this Pre-Form One preparatory English course is not available to every student; it is limited to students who can afford it. This finding aligns with previous studies (Dutcher, 2001, Roy-Campbell, 2001; cited from Clegg, 2007), which report that children from low-income families face greater challenges in education when taught in a second language compared to children from wealthier backgrounds. This creates a disadvantage for those unable to afford the course, particularly the majority of students in public school C. These students might miss-out on the tailored attention, vocabulary building, reading skills and confidence that English private tutoring can offer, as highlighted by Mhamed et al., (2023).

In addition, the research supports the findings of Zheng and Yu (2024) who aim to quantify the inequality implications of differential private tutoring attendance in China. Using gap-closing approach, they found that unequal access to tutoring explains a significant portion of the achievement gap for subject like English, highlighting how private tutoring can reinforce educational inequalities based on SES. This study also corroborates the work of Folden (2002), who suggests that while OTL and student achievement is generally considered to occur within the school environment, students also have opportunities to learn outside the classroom, and these opportunities are often influenced by variations in family background. As a result, this

study has raised important questions about the nature of the impact of MOI choice on OTL and social equity in Tanzania.

The unequal access to private tutoring may affect students' OTL by creating significant disparities in academic support. It is likely that students from higher socioeconomic backgrounds, such as some participants from Zheng and Yu's (2024) study who can afford tutoring, might experience enhanced OTL through additional learning opportunities that could reinforce classroom instruction, potentially leading to better learning experience and academic outcomes. This increased OTL can also contribute to widening achievement gaps, as students without access to private tutoring might have fewer chances to understand complex concepts. Consequently, the lack of equitable access to tutoring can exacerbate social inequalities, reduce educational equity and place greater pressure on formal education systems to address these disparities. However, private tutoring should not be viewed as a universal solution for addressing all challenges related to the MOI. The additional financial burden on families and the limited impact on subjects like Mathematics need to be carefully considered (Mhamed et al., 2023; Zheng and Yu, 2024).

In the following section, I discuss the various internal support mechanisms implemented across different schools to facilitate student transition into secondary education. These supports may help explain the varying levels of impact associated with MOI. For example, a range of "remedials" are provided to students in private school A and community school B, such as extra English lessons, English Speech Programme, weekly tests with a higher grading system and debating clubs. A possible explanation for this might be the relatively low teacher-student ratio in these two schools and their better financial situations. These forms of assistance could be effective in developing student confidence in using English as MOI and fostering more student talk by encouraging interaction, debate, and peer communication. This aligns with Vygotsky's (1978) emphasis on the importance of social interaction in cognitive development, where students learn and internalise new concepts through collaborative dialogue. Additionally, these strategies allow for increased instructional time and the potential to cover more content, further enhancing OTL. The relatively low student-teacher ratio in private school A and community school B also allows for more individualised attention, which might further mitigate the adverse effects of the

English MOI. Thus, the combination of these supports contributes to the relatively lower negative impact on OTL in these two schools.

In contrast, public school C faces significant challenges due to the lack of such support systems. With a large student population and limited resources, the school struggles to provide additional opportunities for students to practice English. The absence of support might lead to the most severe negative impact on OTL among the three school types. While some students have completed the pre-Form One English course, the majority have not. Additionally, it is exciting to know some teachers offer gifts to good performance students at the end of the term, but relying on self-financing may limit the sustainability of this incentive.

However, while different schools offer various support mechanisms, these approaches often reflect a monoglossic ideology that might overlook the value of students' local languages as essential linguistics resources for meaningful learning (Erling et al., 2021). Student local languages are not actively incorporated into these support mechanisms (e.g., “No English, No Service”; “Speech topics are chosen by students but must be delivered in English”). Additionally, it remains unclear whether translanguaging approaches are being implemented and, if so, how effectively and systematically they are being used to facilitate learning during these internal assistance. Furthermore, from the selected two quotations above, a subtractive multilingualism teaching mindset seems embedded in the teaching process.

As mentioned in the literature review, subtractive MLE is not encouraged by researchers, in contrast to additive MLE in the multilingual contexts, where students' L1 (Swahili) continues to be developed while the (Blommaert, 2010; Bowden and Barrett, 2022; Laitin et al., 2019). A possible explanation for this monoglossic ideology and associated subtractive MLE might be related to the predominant use of English in most standardised tests, as suggested in previous literature (Kubota, 2020; Trudell, 2019). As Deutschmann and Zelime (2021) point out “teachers are, just like the rest of the population, influenced by colonial/neocolonial ideals and current global trends (p.72).” Another possible explanation could be the lack of effective teacher training in incorporating translanguaging techniques, which are often used on an ad-hoc basis instead of systematically. More importantly, these

training could help teachers recognise that “translanguaging is a means of supporting equitable quality in education (Espinete et al., 2021, p.175)”. To achieve this goal requires collaborative efforts from all relevant stakeholders, including government support. First, they should permit and encourage the flexible movement between languages in social communication and academic learning. Additionally, they should help students understand that a teacher’s use of the first language (L1) in the classroom is not unprofessional but rather aligns with the inevitable nature of multilingual classroom discourse and can serve as a valuable tool for facilitating learning.

As presented in Chapter 1, data from the 2021 *Tanzania in Figures* indicates that the majority of Tanzanian students (89.07%) enrolled in public secondary schools (National Bureau of Statistics, 2022). This suggests that Tanzania's success in achieving various domestic and international goals (such as Tanzanian Vision 2025, Education for All, and the Sustainable Development Goals) depends significantly on the performance of its public schools. The insights gained from this study could be particularly valuable for Tanzanian policymakers, as they highlight how the current MOI policy is detrimental to the vast number of Tanzanian students’ OTL. Additionally, the research has extended our knowledge of the potential for translanguaging strategies promote educational equity and social justice (García and Li, 2015; Xu and Fang, 2024).

Finally, I want to re-acknowledge a limitation of this study beyond the relatively small sample size from private and community schools, specifically, the strong emphasis on teachers within the OTL framework. Burstein et al., (1995) once indicated that OTL transformed the way researchers, educators, and policymakers consider the factors influencing student learning. Similarly, Folden (2002) and Schmidt et al., (2015) emphasised the strengths of OTL in providing valuable insights for researchers aiming to understand the complexities of the schooling process and the differences in educational outcomes between different groups of students and across countries. Among the three dimensions included in OTL in this research (content coverage, instructional time and quality of instruction), Folden (2002) noted that “quality of instruction is under direct control of the teacher but potentially influenced by other aspects of the education system (p.237)”. In spite of this limitation, the study

contributes to our understanding of the impact of using English as the MOI on OTL across different school types by using questionnaire and interview to collect data from students.

To conclude this section, my analysis reveals that the impact of the MOI on OTL is not the same across different types of schools. Public school C faces the most significant challenges. Community school B also encounters difficulties, though to a lesser extent, reflecting somewhat better access to support. In contrast, private school A is the least affected among the three, benefiting from relatively more resources both internal and external assistance. These findings suggest that the disparities in resources and support systems can contribute to the varying impact of the MOI on student learning across different school environments. In the final chapter, I will revisit my research journey, summarise the key findings, restate the significance and implications already discussed, and offer recommendations for future research.

Chapter 7 Conclusion

This concluding chapter is organised into three key sections. Section 7.1 presents the study's theoretical and practical contributions to the field, along with their implications for policy and practice. Section 7.2 offers critical reflections on the evolution of my understanding of research philosophy, methodological design, and multilingual education throughout this research journey. Finally, Section 7.3 discusses the study's limitations and proposes directions for future research in this field.

7.1 Contribution to the field and Implication

The findings from this study make several contributions to the literature which explores the implications of using international languages instead of the mother tongue as MOI in a multilingual context.

First, the study provides evidence reaffirming the ongoing MOI crisis in Tanzania, as reviewed in Chapter 2, existing literature from (Afitska et al., 2013; Brock-Utne, 2022; Rubagumya et al., 2022) consistently shows that transition in the MOI (from mother tongue to an international language), are detrimental to student comprehension, classroom participation, and academic performance. This research confirms those findings in the Tanzanian secondary school context, adding further empirical weight to the argument that the MOI switch can be a significant obstacle to achieving universal, inclusive, and high-quality secondary education.

Second, this research highlights benefits of translanguaging strategies in multilingual context. Through including students' entire linguistic repertoires, these strategies could lead to significant improvements in language and literacy development for multilingual students. Effectively using translanguaging pedagogies not only fosters proficiency in both the home language and English but also promotes deeper understanding and retention of content. As a result, the insights gained from this study may be of assistance to Tanzanian policy makers who could consider formally integrating translanguaging strategies into the curriculum and provide necessary training for teachers.

Third, the study also substantiates and extends previous research (Erling et al., 2021) demonstrating language-in-education policies prioritising English is more likely to promote traditional, teacher-centred pedagogical methods; therefore, restricting student opportunities to interact with peers and with teachers. This is particularly evident when I compare findings across school types, which reveals how socioeconomic factors might mediate the implementation and impact of MOI policies.

While research on MOI in Tanzania is extensive, prior studies have primarily examined this matter through a linguistic lens and have not connected it to the concept of OTL. As an important framework in explaining education differences for representing the conditions and resources that enable students to be successful in their education experience. Furthermore, a unique contribution of this study is its application of the OTL framework to interpret MOI's educational impact. This framework can be particularly valuable for policymakers because it has the potential to demonstrate the quantifiable negative consequences of certain policies. By quantifying these impacts, using data and measurable outcomes, it might present evidence in a way that is compelling and difficult to ignore. Since numerical arguments are a fundamental part of policymaking, this approach could more readily lend itself to engagement with policymakers (Andone, 2022). Linking OTL with MOI can help policymakers and educators understand the decision of MOI is not a linguistic choice but also has broader impacts for educational equity and social justice.

Additionally, this study has significantly contributed to the understanding of how students in government, private, and community schools implement the MOI policy, an area that has not been thoroughly examined in previous research. Without such insights, the ability of researchers and policymakers to identify issues and develop customised solutions might be hindered. Building on existing evidence (Tai, 2022; Xu and Fang, 2024) that language transitions in education disproportionately disadvantage vulnerable students, this study goes further by revealing the specific mechanisms through which this occurs at the school level. While it is often assumed that private schools inherently offer better opportunities, as pointed out in the research rationale in Chapter 1, private schools often top the league tables, the reality in Tanzania can be more complex, school performance varies widely across

all ownership types (government, private, and community), meaning disadvantage might not be reduced to simple public-private distinctions. Although the study's sample of one school per type can limit broad generalisations, it suggests that further and broader research is needed in this area. Additionally, it also uncovers important patterns in how privilege operates: students with higher SES can secure advantages through paid supplements like smaller classes, school transport, and bridging programmes (such as the Pre-Form One programme), while undersubscribed schools (regardless of type) have more capacity to provide individualised language support. These school level findings might be able to enhance our understanding of how MOI policy interact with local educational reality to reproduce inequality.

Furthermore, Tanzania is experiencing rapid population growth, and equitable and empowering education for all will be important for the transformation of Tanzania society. Tanzania's path toward achieving SDG4 (ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all), and Vision 2025 (become a competitive middle-income country) can depend on addressing the systemic inequities revealed by this study, particularly for the 2.38 million students (89% of secondary enrollments) in government schools (National Bureau of Statistics, 2022). The findings suggest that the continued use of English as the MOI, without adequate support for teachers and learners, can reduce content coverage, limit effective use instructional time, and impair the overall quality of instruction. These challenges call for urgent and tailored policy attention. First, in multilingual context that MOI policy is unlikely to change in the near future, translanguaging strategies should be formally recognised and embedded within national curriculum frameworks as a legitimate pedagogical approach (Erling et al., 2021). Rather than viewing code-switching, translation, and mixing languages as signs of unprofessional teaching practice, education policy could encourage their strategic and systematic use to support learners in bridging linguistic gaps and accessing complex content. For example, policies could formally permit Swahili English switching, and mandate regular workshops on intentional translanguaging techniques and provide model lesson plans demonstrating effective language blending in classroom instruction.

Second, this study showcases why teacher training should be significantly

strengthened, with more than half of surveyed teachers reporting English proficiency hinders effective content delivery, particularly when covering difficult topics and cover topics in depth, while classroom observations revealing reactive rather than strategic use of multilingual practices. These findings necessitate national investment in both pre-service and in-service programs that systematically develop subject-specific language skills and research-based strategies for managing multilingual classrooms (Makalela, 2015; Ngware et al., 2014; Nzariwehi and Atuhumuze, 2019). Teachers require not only proficiency in their own English language skills but also the pedagogical competence to effectively scaffold instruction through the strategic use of students' home languages.

For national education goals to be met, language policy should be reoriented to respond to real classroom conditions, acknowledging the linguistic diversity of Tanzanian learners and the practical challenges faced by teachers. Without such measures, MOI will remain a barrier to effective teaching and learning, particularly for the majority of students in public schools, ultimately limiting their ability to contribute to the country's social and economic development.

Despite the concept of OTL being developed in the United States over half a century ago, this research sheds new light on how to operationalise OTL from analysable data. Building on the work conducted by Oketch et al. (2012) and Carnoy et al., (2015), who provide a workable framework of OTL in Sub Saharan countries, such as Botswana, Tanzania, Kenya and South Africa, this research provides a more refined and comprehensive comprehension of OTL which is tailored to the Tanzanian setting. The definition of OTL utilised in this project acknowledges the interconnectedness of the three dimensions and has the potential to be relevant in other developing nations facing similar challenges.

7.2 Research Journey

In this section, I would like to reflect on the changes of my understanding of research philosophy, research design and multilingual education throughout the study. This retrospective approach particularly focuses on the tension between the explorative nature of the study and the objectively worded research aims and questions.

My motivation to study the MOI policy in Tanzania has personal roots. While volunteering in Songea MC, I witnessed firsthand the complex realities of language transitions in Form One classrooms. My own experience learning academic content through English, a non-native language, provided me with intimate insight into both the challenges and benefits of second-language instruction. These experience inspired my desire to understand the MOI switch through the lived experiences of students and teachers; an approach aligned with exploratory interpretivism. However, I have confronted with tensions while formulating research questions. While my philosophical learning drew me towards qualitative understanding, an approach that is well established in multilingual education research where classroom observations, interviews and focus groups are common methodological tools, my research questions (with wording such as “affects”, “examine” and “effects”) might imply an objectivist assumption. This tensions were further compounded by my adoption of the OTL framework. Originally developed by the US educational stakeholders in the 1960s with quantitative foundations, OTL’s focus on measurable outcomes initially led me towards more positivist formulations, despite my interpretivist intentions and the qualitative traditions of my field.

My fieldwork revealed variations in how teachers conceptualised “content coverage,” diverging from conventional definitions measuring completed syllabus units with prescribed syllabus. Through classroom observations and interviews, I realised how institutional policies were actively interpreted and negotiated at the local level. These experience not only validated my interpretivist approach but also demonstrated how participants are experts of their own educational experience.

These changes have reshaped my understanding of understanding of education research. Moving beyond a binary choice between positivism and interpretivism, I now recognised that research philosophy as a dynamic process of aligning epistemological commitments with methodological choices and realities of the world. Additionally, this research journey has taught me that knowledge is always partial and subjective within the interpretivist view of research.

7.3 Limitation and Suggestions for Future Studies

While the findings of this study provide valuable insights into understanding on MOI and OTL in the Tanzanian context, it is crucial to recognise the limitations of this research. This section reflects on my PhD journey and highlights weaknesses in the following areas: the strong focus on teachers within OTL as a framework, the difficulty of measuring OTL, sampling strategy, language barrier, data collection, and the impact of Covid-19. By acknowledging these limitations, one can better interpret and contextualise the study findings, and identify areas for future research to build upon. First, as an important framework within international comparison studies, OTL has been continuously developing over the last half-century, as discussed in Chapter 2. It provides valuable insights for researchers seeking to understand the complex schooling process and the disparities in educational outcomes between groups of students and across different countries (Folden, 2002; Foshay et al., 1962; Husén, 1967). The framework is a crucial competent of effective teaching and fair testing, irresponsive of the differences among racial, ethnic, and socioeconomic backgrounds (Elliott and Bartlett, 2016). OTL is also relevant for policy makers to identify where interventions are required for promote education equity (Perry et al., 2024; Schmidt et al., 2018).

However, dimensions within OTL adopted in this research can have a strong emphasis on teacher, which may not fully capture all aspects of students' learning opportunities although being a multidimensional concept. It is evident from the original definition discussed in Chapter 2. OTL was first defined the time teacher devoted to an aspect of intend curriculum by the First International Mathematics study in the 1960s. Although the scope has gradually expanded and is now applied in both developed and developing countries, the most common methods of measuring it still tend to focus on teacher level variables (such as lesson plans and self-report from teachers). For instance, it seems from the evidence illustrated in the finding chapters that teachers tended to talk about what they did in a lesson rather than what the students did. However, OTL is influenced by more than just teachers, it is also shaped by students themselves, their schools or districts, and even the broader educational system of the country (Perry et al., 2024). Here I am not saying student level of variables are not collected in previous research. On the contrary,

student level variables are crucial in measuring OTL. For instance, as discussed in literature review chapter, Wang (1998) gathered data on student gender, age, ethnicity, attendance rate and test scores to explore the link between student OTL and their science achievement in California. Similarly, Carnoy et al. (2015) also collected data on student characteristics, family background to estimate student mathematics learning in Botswana, Kenya, and South Africa. Future research on OTL can encourage teachers to place more emphasis on describing what students do. In this study, I have adopted classroom observations to reflect on student behaviours and engagement.

In addition to what has been mentioned above, accurately measuring OTL remains a significant challenge (Banicky, 2000). For example, when the Trends in International Mathematics and Science Study (TIMSS) examined student achievement in mathematics and science in 2007, it took researchers over a year to develop a framework for categorising content and to create a method for measuring what happens in classrooms (Schmidt and Maier, 2009). Moreover, using web-based teacher logs to collect data from instructional content processes might introduce several challenges, including potential biases and inaccuracies in reporting due to recall errors or subjective interpretations of what constitutes teaching specific content (Ball et al., 1999). The reliability and validity of teacher survey used to collect information about instructional practice has also been questioned (Mayer, 1999). Relying on Internet based data collection tools can cause logistical challenges in low resource environments. Although several online data collection tool were invented during the past 10 years (Elliott and Bartlett, 2016), the web-based teacher logs may not be successfully implemented, particularly in my research, where internet access is limited. Future research should consider how to better collect OTL data in low resource contexts. Third, as an evolving concept, OTL might include different dimensions in different countries especially when the pressure for accountability has increased (Banicky, 2000), requiring researchers extra caution when interpreting data. The complexity involved in translating OTL into educational policy can be a significant limitation, as excessive detail in OTL measurement can make it difficult to effectively communicate policy implications (Schmidt and Maier, 2009).

Moving on to the second challenge of this research, I must acknowledge the methodological limitations of this study (discussed in Chapter 3). Due to lack of access to a large random sample, I employed snowballing and convenience sampling strategies and purposefully selected three schools in Songea MC based on their willingness to participate, their availability and proximity to my location. As popular sampling strategies in exploratory research, particularly when the target population is challenging to reach (Naderifar et al., 2017), these two approaches allowed me to conduct research within the time frame of my study. However, the participants may not be fully representative. Songea MC was chosen as the context of my research due to my previous volunteer experience. However, the small sample size of private school A and community school B limits the ability to conduct inferential statistics, which may hinder the detection of any significant relationships and restrict the generalisability of the findings. That being said, the percentage of student survey participants may reflect Tanzanian secondary school enrolment, where 89.07% of students are enrolled in public schools (National Bureau of Statistics, 2022). In student survey, 86% respondents (201 students) are from public school. However, future research still needs to expand the sample size and include more schools, particularly private schools and community schools in other parts of Tanzania, to create a more representative picture.

Another potential limitation of this research is the risk of recall bias affecting the interpretation of the data. Briefly mentioned earlier in this section, the use of self-reported information in the survey to describe student and teacher achievements, progress, content coverage, and resource availability may be challenging to verify independently. If future research intends to collect data on content coverage, it could include multiple data collection methods, such as teacher self-report surveys, paper-based teacher logs, and multiple student notebooks, to further increase validity and credibility. In addition, the temporal gap between the survey or interview and the phenomenon being studied may affect participants' recollection of events, potentially resulting in inaccuracies and exaggerations. Consequently, this has the potential to negatively impact the reliability and validity of the data (Pekrun, 2020).

For example, the confusions have been identified during the fieldwork when students asked which languages they use more often inside and outside of classroom. Although Swahili was widely used outside class by student and teacher,

but some students have indicated they use English. Future research could identify the conflicts earlier and clarify in the following interviews. Another possible drawback of the survey is some item is not mutually exclusive, such as the question:

How many English books do you have at home? _____
☐ 0-5. ☐ 6-10. ☐ 11-15. ☐ 16-20. ☐ above

I should have separated zero with others, as it has led confusion when many students choose 0-5 and I fail to capture if they have books, and the exact number of books they have, which might affect the interpretation of the findings. Although I conducted a pilot before the full scale research, the issue was not raised by students or teachers. Future studies should take greater care when designing closed-item surveys, ensuring that each item is mutually exclusive and clearly conveys the intended purpose of the question.

In this section, I would like to reflect on the challenges and limitations encountered during my research amid the Covid-19 pandemic. While the decision to employ a research assistant has been extensively discussed in Chapter 3 (section 3.4.2), there were several factors that could have been handled differently if I had been able to collect data myself. Specifically, when the teacher in public school C did not consent to being recorded during a classroom observation, I had to rely solely on the RA's notes. Despite our frequent communication during the data collection period, the lack of the recording might have impacted the interpretation of the teacher's pedagogical practices, particularly in relation to her decision-making process for when and how to use Swahili, as well as the subtle signs displayed in her and her students' body language before and after the use of Swahili. Had I been collecting the data myself; I would have had the flexibility to stay longer and build rapport with the teacher, which might have increased the likelihood of obtaining consent for filming. This limitation arose because the RA, who is also a PhD student, had restricted availability and could not exceed a certain timeframe for data collection on my behalf. By spending more time on-site, I might have been able to establish a deeper level of trust and understanding with the teacher, which could have resulted in a greater willingness to be filmed during classroom observations.

If I had conducted semi-structured interviews with students and teachers, I would have probed certain participants to expound on their parents' inclination towards English language communication and their utilisation of books at home. This is because a teacher in private school A mentioned that the more serious problem is that students do not know how to use books for independent learning, and I believe gathering information from both sides can provide a more comprehensive understanding of the situation. While the RA has asked some follow-up questions, the opportunity to collect data in person could have allowed for deeper insights to emerge through probing and clarifying questions. Although some of the listed factors may not be out of my control, but I have taken actions to minimise the impact, such as keeping in touch with the local contacts and revisiting some teachers and students in June 2022 to ask some clarifying questions.

Despite the limitations mentioned earlier, methodologically, this study has the potential to contribute to the field of social science research by shedding light on several important aspects. First, it offers insights into how to conduct research by involving a research assistant, including the advantages and limitations of this approach. Second, it helps to clarify the complexities of how to conduct research abroad, particularly in a low-resource environment with limited access to technology and resources. Finally, it reflects on the issue of positionality in research, emphasising the importance of recognising and acknowledging the researcher's background and its potential impact on the study. By addressing these important issues, this study may help inform future research experience and improve the quality of research conducted in similar contexts.

Finally, in addition to methodological improvements, there is another research question that deserves attention. For decades, there has been a widespread debate in Tanzania regarding the language used as the MOI in education. International and domestic researchers have highlighted that mother tongue-based education plays a significant role in high-quality education. Despite this evidence, the current MOI policy has done more harm than good. Future studies could explore why the government continues with the MOI policy when plenty of evidence indicates otherwise.

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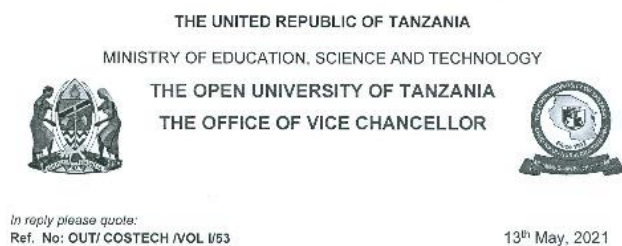
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Appendix 1 Research Permits

Supporting Letter from Open University of Tanzania



Director General,
COSTECH,
P.O. Box 4302,
DAR ES SALAAM.

Dear Sir,

RE: SUPPORT LETTER FOR MISS LIU YUNCONG

2. Miss Liu Yuncong is a PhD researcher at the Institute of Education, University College London, UK currently working as lead researcher in a study titled; *"How does the Switch of the Medium of Instruction Affect Student Opportunity to Learn in Tanzanian Secondary Schools"*. The researcher will collaborate with Mr. Hamis Juma a master's graduate of Aga Khan University, IED – East Africa who will work with her as a research assistant.
3. Miss Yuncong has requested The Open University of Tanzania (OUT) to host her study. I am hereby, writing this letter to support Ms. Yuncong application for research clearance as she will be affiliated at OUT.
4. Please accord her the necessary cooperation.

Yours sincerely,



THE OPEN UNIVERSITY OF TANZANIA



Prof. Deus D. Ngaruko
For: VICE CHANCELLOR

Vice Chancellor, The Open University of Tanzania, P. O. Box 23409, Dar es salaam.
Tel: + 255 22 2668445, Email: vo-sc@out.ac.tz, <http://www.out.ac.tz>

Appendix 2 Fieldtrip Notes from RA (excerpts)

(Private School A)

Students showed me where the park lots is, where the admin office is and where the classes are. The school seem to have a good learning culture, the students are seen as disciplined (they greeted me as I was passing and help carry my luggage).

Students have good behaviours. School is quiet, and every student is busy with something. (Not just chatting, wandering around).

Teachers were always available to assist when I needed any help. It did not take long after explaining what I will be doing, they said it is okay because that is academic job, and their school is welcoming any academic related activities with both hands.

I use Swahili when I talk to them.

The school was welcoming, the teachers as well as students. Before observation (first observation and second) I talked to the students on what we will be doing (detailing them on project information) and that they will participate as they normally do during the teaching and learning activities, and not concentrate on camera and the video will only be seen by research assistant and researcher. I was five minutes early before the teacher and wait for the next session to start during the first observation, however during the second observation the teacher asked me to come to class ten (10) minutes early. The class was disciplined and well behaved, nothing unordinary was seen during the observation. The school has enough infrastructure for its students, I was able to get a chair and table at all two observations that I used for my note taking. Also, there saw space that I stationed my recording camera. The space was enough for students and teacher can walk to every student in the class without trouble. The class setting also allowed easy movement and group formation (if need to be done). There were some extra tables and chairs in the classroom. However, there was not special dedicated table for the teacher.

Appendix 3 Basic Information of Classroom Environment and Teaching Process

		Private School A		Community School B		Public School C	
		Week 1	Week 2	Week 1	Week 2	Week 1	Week 2
Blackboard in the classroom 1=No. 2=Yes 3=Not Applicable		2	2	2	2	2	2
a)Display of charts, pictures, maps on the wall 1=No. 2=Yes 3=Not Applicable		1	1	1	1	1	1
b)If yes, are there learned made things on walls 1= None 2=Few 3=Many 4= Can't tell		1	1	1	1	1	1
Textbook/Other printed material (ticket one box) 1=Entire class. 2= More than half. 3= Less than half 4= Very Few Nobody. 5= Non Applicable		4	4	4	4	4	4
Notebook/ Writing material (ticket one box) 1=Entire class. 2= More than half. 3= Less than half 4= Very Few Nobody. 5= Non Applicable		1	1	1	1	1	1
School Uniform (ticket one box) 1=Entire class. 2= More than half. 3= Less than half 4= Very Few Nobody. 5= Non Applicable		1	1	1	1	1	1
Does the lesson include? 1=No. 2=Yes	Review of work completed today	1	1	2	1	1	2
	Checking Some Work	1	2	2	2	1	1
	Checking Everyone's Work	1	1	2	2	1	1
	Homework	1	1	1	1	1	1

	Can't tell about homework	1	2	1	2	2	2
Kind of questions used 1=No. 2=Yes	Very few/No questions asked to learners	1	1	1	2	2	2
	Simple, repetitive questions to individual or class chorus (Basic operations, yes/no, etc.)	2	1	2	2	2	2
	Give examples, short answers	2	2	2	2	2	2
	Conceptual (describe process, explain your answer)	1	2	1	1	1	1
Overall Degree of Discipline (selected one category only) 1=Low (many instances of kids talking out of turn, not being quite when asked by teacher, getting up and moving about the class horsing around, teacher repeatedly telling students to sit down, stop talking, etc.) 2=Adequate (Some instances of talking out of turn or moving about room, teacher not always obeyed immediately) 3=Good (Few instances of talking, horsing around, moving about room, but respond quickly to teacher requests to stop) 4=High(Learners are very quiet or discussions are orderly, teacher doesn't have to ask learners to be quiet, etc.)		4	4	3	3	3	3

Student initiated activity (selected one category only) 1=None (Teacher- directed class, learners watch teacher and very little (engaged) interaction between learners, teacher-learners interaction is form of simple questions put to individuals or whole class chorus) 2=Learners ask some questions for clarification, raise hands but generally teacher centred class 3=Learners freely ask questions, approach teacher physically, ask/respond to each other 4=Learners centred class marked by high degree of learners control of discussion, asking and responding to each other, teacher mainly supervising discussion, not leading it.		2	3	1	2	2	2
Does the lesson include? 1=No. 2=Yes 3= Can't tell	Pre-prepared Activities	1	1	1	1	1	1
	Pre-prepared Homework	1	1	1	1	1	1
Written material used 1=No. 2=Yes	Textbooks	2(teacher)	2(teacher)	2(teacher)	2(teacher)	2(teacher)	2(teacher)
	Workbook	1	1	1	1	1	1
	Others	1	1	1	1	1	1
Manipulable used 1=No. 2=Yes	Counting materials	1	1	1	1	1	1
	Shapes/pictures/words	1	1	1	1	1	1
	Learning games/activities	1	1	1	1	1	1
	Describe learning games/activities	n/a	n/a	n/a	n/a	n/a	n/a
	Flash cards	1	1	1	1	1	1
	Others	1	1	1	1	1	1

Physical facilitates/environment 1=Poor 2=Adequate 3=Good 4=Excellent	Space (room is big enough)	4	4	2	2	2	2
	Lighting	4	4	2	4	2	2
	Desk (sufficient number)	4	4	3	1	2	2
	Sound (Noise from without, resonance)	4	4	2	3	2	3
How often does the teacher use English as the medium of instruction? (chOOSE from 1=Never, 2=Rarely, 3=sometimes, 4=often, 5=always)		5	5	4	3	3	3

Appendix 4 Semi-structured Interview Questions

For students:

- How long have you been learning English? /When/where did you first learn English?
- How will your secondary education be of use to you and to Tanzania?
- Did you have any challenges when you transitioned into secondary school? If so, what?
- What do you suggest the teacher/school can do to help you transition to the secondary school?
- How do you feel about being in an English-speaking environment for the first time?
- Did you have any difficulties when you started learning English? (If so, what?) Do you have any difficulties when you use English to learn other subjects? (If so, what?)
- How easily do you understand your teacher when they use English in Class?
- How regularly does your teacher use English?
- Which language do you prefer to use as the medium of instruction? And why?
- What is your parents' view toward using English as the medium of instruction?

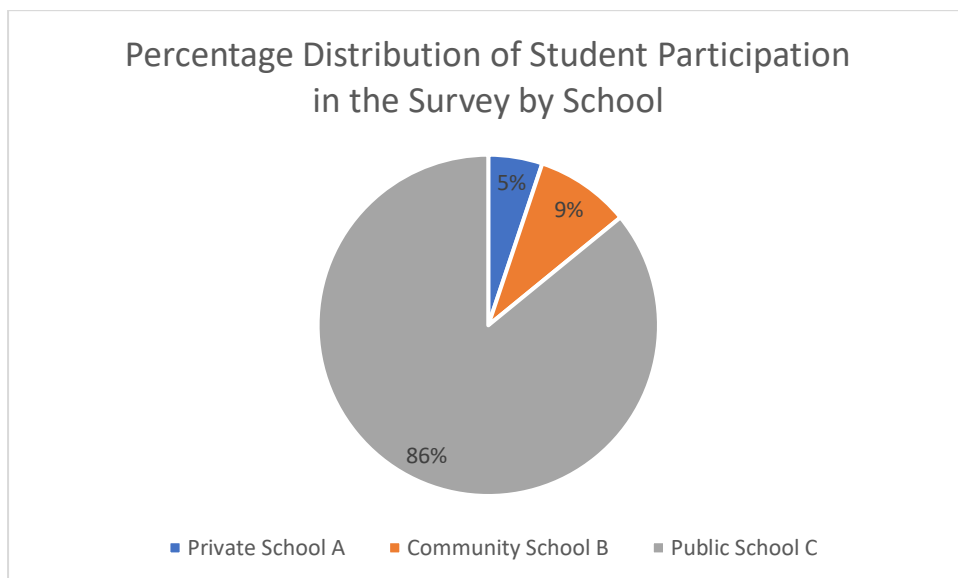
For teachers:

- Can you tell me about the school you are working?
- How long have you been a teacher? / How long have you been a teacher in the secondary school? / How long have you taught in English?
- How long have you learned English?
- Do you remember the first experience of teaching in English? If yes, can you elaborate on it?
- How proficient are your students in English?
- What would you do if you find students cannot understand what you said?
- Which language do you prefer to use as the medium of instruction? And why?
- In regard to the current language policy, do you have any thoughts? /What is your opinion in regard to teaching and learning in English?
- What are the main issues faced by teachers when teaching in English?/ Are there any in-service training?/ Anything you would like to improve if you have chance?
- How do you think should students be helped in transitioning into secondary school?
- If you have the chance to change the policy, which language would you choose and why?

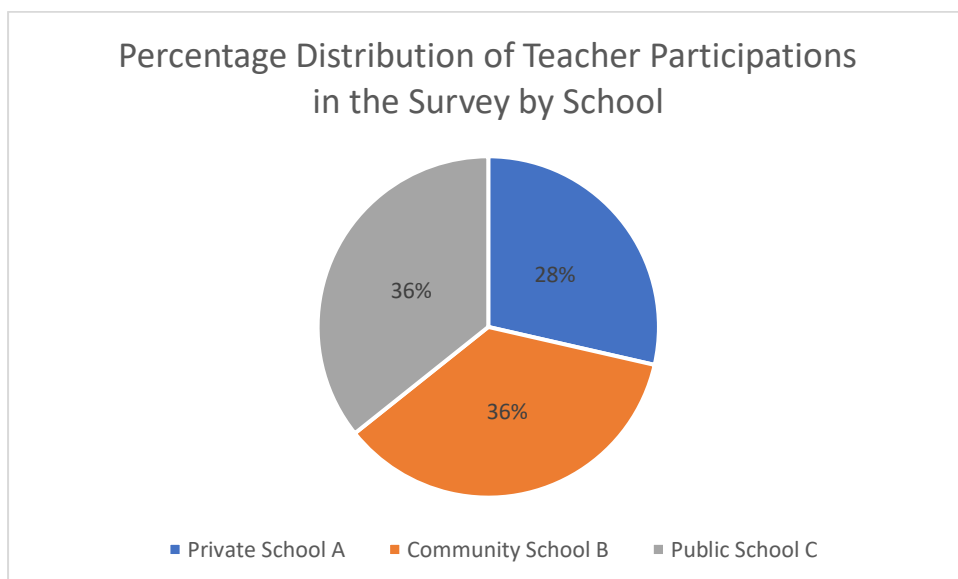
- Why do you think the government would like to continue the policy?

Appendix 5 Participant Distribution across Schools

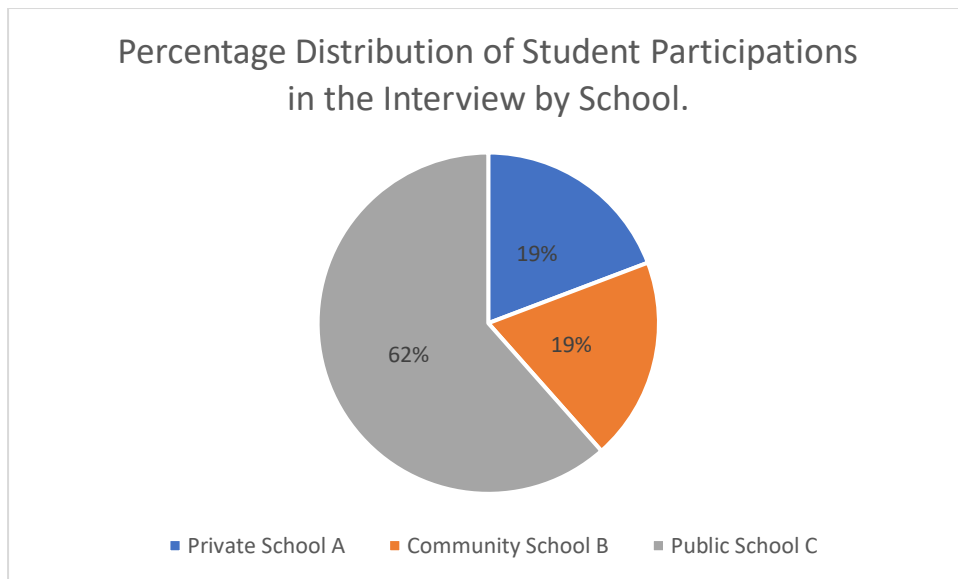
Percentage distribution of Student Participations in the Survey by School.



Percentage distribution of Teacher Participations in the Survey by School.



Percentage Distribution of Student Participations in the Interview by School.



Percentage Distribution of Teacher Participations in the Interview by School.

