Perceptions and experiences of urban school, home and neighbourhood learning spaces, and implications for pedagogy in Tanzanian primary schools.
A comparative case study.

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Abstract

Tanzanian children and their perceptions and experiences are almost invisible in education research, though they are frequently represented in national learning outcomes scores or school enrollment statistics. This, combined with the widely recognised issue of large class sizes and common depictions of teacher-directed pedagogies has resulted in the default characterisation of Tanzanian primary children as a passive, struggling mass. This thesis sets out to challenge this portrayal and enrich the evidence-base by connecting pupils' stories with wider discourses of learning and education, stretching across school, home and neighbourhood spaces and linking the local to the national and international.

Using a comparative case study design, the study investigates perceptions and experiences of learning in and out of school, and implications for pedagogy in two urban primary schools in Tanzania. Here, space is conceptualised as socially produced and relational; places such as home and school are not static, bounded containers but rather are created by distinct interactions of social, cultural, political and material trajectories, stretching far beyond the local, and changing over time. Multiple methods were used with children and adults to gain insight into how different learning spaces are produced and the effects they have on learning and pedagogy.

Three pupil 'stories-so-far' are presented which illustrate the children's lives holistically as they traverse home and school spaces. Trajectories of togetherness stand out in children's accounts of home and neighbourhood. However, their stories are interrupted in the crowded classroom as they and their teachers negotiate multiple trajectories. The wider analysis explores trajectories of togetherness further, revealing the ways that togetherness bends and warps over time as it intersects with other trajectories creating spaces which, in turn, produce distinct, and sometimes unintended and negative social and pedagogical effects. Educational interventions and reforms can be seen as entering a complex constellation of trajectories, where consideration of anticipated interactions and negotiations is essential. Harmful collisions and clashes need to be avoided if we are to open up more meaningful learning spaces and allow children's 'stories-so-far' to enter and enhance the classroom.

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Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this thesis is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

Signed: Rhona Brown

8.4.2022

Abbreviations

BRN	Big Results Now
CCS	Comparative Case Study
CIE	Comparative and International Education
CPD	Continuing Professional Development
DEO	District Education Officer
DfID	Department for International Development (Now FCDO)
DP	Development Partners
EFA	Education For All
EMI	English Medium Instruction
ESR	Education for Self-reliance
ESDP	Education Sector Development Plan
ETP	Education and Training Policy
FBE	Fee-free basic education
FCDO	Foreign, Commonwealth and Development Office (previously DfID)
FGD	Focus group discussions
GEEAP	Global Education Evidence Advisory Panel
GMR	Global Monitoring Reports
GER	Gross Enrolment Ratio
IDTs	International Development Targets
LCE (LCP)	Learner-centred education (also learner-centred pedagogy)
LMIC	Low- and middle-income countries
LOI	Language of Instruction
MDGs	Millennium Development Goals
MoEST	Ministry of Education, Science and Technology
NECTA	National Examinations Council of Tanzania
PEDP	Primary Education Development Plan
PO-RALG	President's Office - Regional Administration and Local Government
PSLE	Primary School Leaving Examination
PTR	Pupil-teacher ratio
RCT	Randomised Control Trial
SAP	Structural Adjustment Programme

SDGs	Sustainable Development Goals
SEN	Special Educational Needs
SFNA	Standard Four National Assessment
SHLC	Sustainable, Healthy, Learning Cities and Neighbourhoods
SMC	School Management Committee
SQA	School Quality Assurance
SSA	Sub-Saharan Africa
SWAP	Sector-Wide Approach
TA	Thematic analysis
TIE	Tanzanian Institute of Education
TTC	Teacher Training College
UPE	Universal Primary Education
URT	United Republic of Tanzania
VSO	Voluntary Services Overseas
WASH	Water, sanitation and hygiene
WDR	World Development Report
WEC	Ward Education Officer

Chapter 1. Introduction

Through this thesis I aim to enhance understanding of how primary children's learning is perceived and experienced in and across home, neighbourhood and school sites in a rapidly growing regional capital in a predominantly rural region of north-west Tanzania. This understanding will then be used to reflect on implications for pedagogy.

I open with three short illustrative stories, or snapshots, about Tanzanian education. Several threads from these stories are woven throughout this thesis and frame the approach and debates I engage with.

Three Tanzanian stories

1. A story of independence

In 1961, Tanzania became independent and was determined to strike out on its own path for the first time as an independent nation-state. President Julius Nyerere was clear that Tanzania did not need to look to the UK or USA to learn about capitalism nor to look to Russia to learn about socialism. Neither was it a choice between modernity and traditionalism, or backwardness and development. Rather, his aim was to plan for a modern, developed Tanzania which was still distinctively African (Baganda, 2016).

Nyerere rolled out *Ujamaa*, a Tanzanian form of African socialism. Unlike several of its neighbours, Tanzania's development strategy was directly relevant to its immediate socio-political problems and rural economic development (Baganda, 2016). In this way, it stood apart from many other newly independent African countries in the trajectory of education development, with its purpose clearly aligned to societal goals:

> Only when we are clear about the kind of society we are trying to build can we design our educational service to serve our goals … We want to create a socialist society which is based on three principles: equality and respect for human dignity; sharing of the resources

which we produced by our efforts; work by everyone and exploitation by none (Nyerere, 1967, in Lema et al., 2004, p. 71).

The education policy, *Education for Self-Reliance*, broke new ground by "radically reassessing the social and economic functions of schooling" (King, 1984, p. 3).

Nyerere's post-independence government was addressing issues of Universal Primary Education (UPE) long before it had become a central column of global education development agendas (King, 1984). In short, Tanzania wanted to author their own trajectory in development and in education. However, the path was not smooth, for example, although the number of pupils enrolled in primary schools almost doubled in the first decade of independence (Nyerere, 1985), reaching a Gross Enrolment Ratio (GER) of 98% in 1980 (Mbilinyi, 2003), as school fees were re-introduced in response to the pressures of the conditions of World Bank loans and their Structural Adjustment Programmes (SAP), GER dropped to 71% in 1988 (Mbilinyi, 2003).

2. A story of failure?

In 1998, a retired Julius Nyerere attends a meeting with senior World Bank staff in Washington. The story goes that a high-ranking World Bank official asked Nyerere to explain himself: "Why have you failed?"

Nyerere answered, "The British Empire left us a country with 85 per cent illiterates, two engineers and 12 doctors. When I left office, we had 9 per cent illiterates and thousands of engineers and doctors. I left office 13 years ago. Then our income per capita was twice what it is today; now we have one-third less children in our schools and public health and social services are in ruins. During these 13 years, Tanzania has done everything that the World Bank and the International Monetary Fund have demanded." Nyerere then passed the question back to the World Bank experts: "Why have you failed?" (Pandor, 2004, p.1)

3. A new voice, a new story

In March 2020, I sat in a classroom at Zamani Primary School, looking at the photographs that 11-year-old Happy had taken for my project (Figure 1). Happy, Hereneus (the research associate) and I discussed why she took this picture.
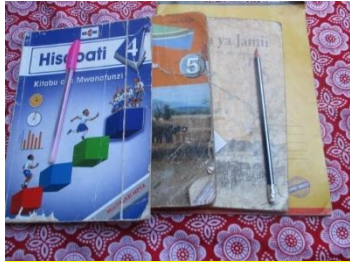
Figure 1 - Happy's photograph of textbooks

Happy:	Ai! I'm so sorry! These books look so worn! … These are things that help me to learn at home.
Rhona:	So, how do you study by yourself at home, without a teacher?
Happy:	(long, animated answer)
Hereneus:	(interpreting) She uses her exercise books to learn but sometimes she asks her sister to prepare questions like a test and she does them and when she finishes her sister corrects her.
Rhona:	So help me to understand. You study at school, then you study at tuition, and then you study at home too?
Happy:	Yes.
Rhona:	When do you relax?
Happy:	Relax?
Rhona:	Or play?
Happy:	Play? (pauses to think) I play on Sunday…
Hereneus:	She plays on Sunday, when she finishes her tuition tasks.
Rhona:	And where does it come from…this love of studying?
Happy:	(pauses then gives a long high-speed answer) …
Hereneus:	She says that she got interested and she wanted to study because there was a time when she got number 4 in the classroom results and so she thought she was good so she didn't care about studying and then another result came, she got number 6 so that's why she recognized that she should have studied very hard and that's when she started studying hard.
Rhona:	So is it mainly coming from inside herself or are there people outside who also are encouraging her?
Happy:	…
Hereneus:	She's the one who likes to study because the benefits for studying are for herself.

Firstly, told by the World Bank, the state of Tanzanian education constituted a story of national policy failure, whereas Nyerere's alternative story places blame squarely with the World Bank itself. Of course, neither are completely true or false; there is not just one story, there is a "collection of interwoven stories" (Massey, 2005, p. 118). The story of the World Bank is part of Tanzania's story and vice versa. Tao (2013) opened her study of teacher practice in Tanzania by warning of the danger of 'the single story', in her case, of the 'Third World Teacher'. She aimed to disrupt this and offer new and more complete stories. Similarly, rather than see a global/local binary (Beech and Artopoulos, 2016), or accept any singular grand narrative (Massey, 2005), this thesis hopes to present a more complete story by exploring connectivity and relationality.

This connectivity should stretch out to include Happy's story above: a rare story in education research. Stories of presidents, policies and pupils are seldom seen together, and if they are, the children tend to be represented in learning outcomes or GER statistics (e.g. Uwezo, 2019, UNESCO, 2020). Children from low- and middle-income countries (LMIC) and their perceptions and experiences are almost invisible in education research (Westbrook et al., 2013, Schweisfurth, 2011, Alexander, 2008). Oversimplified but common descriptions of ineffective pedagogical practices as 'teacher-centred', of classrooms as overcrowded (Westbrook et al., 2013) and of poor learning outcomes (Uwezo, 2019, Pritchett, 2013) help establish a 'default' characterisation of Tanzanian children as a passive, struggling mass. This portrayal is at odds with the commitment and enthusiasm for learning, in and out of school, that we see in Happy's story. This thesis looks at the relationship between individual children's learning experience and national and international policies and programmes.

Further, references to illiteracy, GER and out-of-school children seen in the first two snapshots are also seen in the dominant contemporary global discourse of the 'learning crisis' (Benavot and Smith, 2020, Sriprakash et al., 2020). Despite the massive strides in improving access to basic education, millions of children are in school but not learning (UNESCO, 2020, Pritchett, 2013). In Tanzania, independent assessments of learning in Kiswahili, numeracy and English demonstrate that the surges of improvement in access are not being reflected in quality. For example, more than half of Standard 7 primary school leavers

cannot read an English story at Standard 2 level, and English is the medium of instruction at secondary school (Uwezo, 2017). What constitutes 'quality' education and how to achieve it are questions that pervade global education discourses but they often skirt around what really matters: pedagogy (Livingston et al., 2017, Alexander, 2015).

However, not only do we need to see significant increases in quality of education to support improved basic learning outcomes, but the learning itself needs to change. One global estimate states: "65% of children entering primary school today will ultimately end up working in completely new job types that don't yet exist" (World Economic Forum, 2016, p. 1). Today's children need to be prepared for increasingly unpredictable and insecure futures (Kirschner and Stoyanov, 2020, Delors et al., 1996), and the expectations of education, and therefore children, to fix the problems caused by past generations are intimidating (see Alexander, 2015). In 1967, Nyerere was "radically reassessing the social and economic functions of schooling" (King, 1984, p. 3) but to what extent is the current education system aligned to and accomplishing a clear purpose? Are children developing the knowledge and skills they need?

Of course, learning does not only happen in school. While global discourses are dominated by the 'learning crisis' (Benavot and Smith, 2020, Sriprakash et al., 2020), very little attention is paid to children's learning or experience of learning in places other than school (or at least this was true until COVID-19 redirected the discourse to learning out of school). Furthermore, the relation between in and out of school learning and how children perceive the links and gaps between them is seldom discussed. This also links to the thread of *where* children are living and learning. *Ujamaa* is still heavily referenced in education discourses today (e.g. MoEST, 2019, Sakata, 2019, Baganda, 2016), though it was designed for a majority rural population and Tanzanians are living in rapidly changing physical environments. In 1970, six years after the United Republic of Tanzania (URT) was formed, it had a population of around 13 million, of which only about 6% lived in urban areas. In 2020, the population was more than 58 million with an urban population of 36%, and the trend will continue, with the balance expected to tip from more rural to more urban in 2042 (DESA, 2019). This raises questions: how do these changing environments affect schooling and

education? What is it like for children to learn in these rural and urbanising environments?

Behind every piece of information presented and question raised here, there are the individual children, in classes with their friends, peers and teachers, negotiating changes and challenges. It can be difficult to look at this big picture and hold the scale of the issues in mind at the same time as realising that every mention of 'learning outcomes', for example, refers to knowledge, skills and values learned (or not) by individual children, and linked to pedagogies implemented by teachers in very varied and often very challenging circumstances. Where are the voices of children in education research? What are their perceptions and experiences of learning in school and out of school?

This thesis targets the intersection of four main areas and gaps in research mentioned above: in and out of school learning, children's voice and visibility in education research, rapid urbanisation, and pedagogy as an essential ingredient in quality education and learning.

Research aim, objectives and questions

As well as gaining insight and understanding of the main phenomenon of interest, perceptions and experience of learning spaces, the study has further methodological, conceptual and theoretical objectives. Firstly, since children are rarely included in pedagogy research (Westbrook et al., 2013, Schweisfurth, 2011, Alexander, 2008), the study aims to increase the visibility of children's perceptions and make space for representation of their stories. A key part of this will be the use of multiple methods to generate data across spaces. I hope to contribute to the evidence base and build on the richly contextualised studies of teachers and teaching in Tanzania (e.g. Vavrus, 2021, Tao, 2013, Barrett, 2007) by including this focus on pupils and their learning. Secondly, in terms of conceptual and contextual objectives, the study is designed to investigate learning in a broader sense than that which is measured in school examinations and national or international assessments, highlighting the learning that happens in and across home and school sites. I hope this will serve as a valuable counter-balance to the dominant discourses of schooling and the 'learning crisis' (Pritchett, 2013, The World Bank, 2018). In addition, thinking of the uncertain

futures ahead, the study aims to reflect on learning and pedagogy in a broader discussion of the *purpose* of primary education and reveal both tensions and opportunities. Finally, in terms of a theoretical objective, this study intends to contribute to understandings of learning, pedagogy and context by applying a spatial lens, based on Doreen Massey's conceptualisation of relational space (Massey, 2005, 1994), to investigate the complex bundling of multiple trajectories and negotiations that produces the spaces where learning happens.

The two main research questions (1 and 2 below) are focused on learning and pedagogy which are highly situated, contextualised phenomena (Tikly, 2015, Schweisfurth, 2013, Alexander, 2000, Lave and Wenger, 1991). This is where the spatial lens benefits the study. Two sub-questions (1a and 1b) further guide the investigation:

1. How do primary teachers and pupils perceive and experience school, home and neighbourhood learning spaces?
    a. How are these spaces produced?
    b. And what are the implications and opportunities for learning in these spaces?
2. What are the implications of this for pedagogy?

To answer these questions I took a "leap into space" (Massey, 2005, p.80), and spent five months in Bukoba, Tanzania, investigating perceptions and experiences of pupils, teachers and other education staff. I developed a range of creative and more traditional data generation methods including photo-elicitation interviews, go-alongs and observations to gain insight into participants' lives and learning in and around two urban government primary schools. The research presented here used an adapted Comparative Case Study approach (Bartlett and Vavrus, 2017c) and applied a spatial lens (Massey, 2005) to 'hold' complex phenomena around learning and pedagogy together in order to investigate them.

My own Tanzanian story

I did not come to this project as a blank slate, and as a qualitative researcher, my own story has significant bearing on how it was carried out. I introduce my own Tanzanian story briefly here.

In 2009, I left my job as an English language tutor and teacher trainer at the University of Glasgow and joined a two-year Voluntary Services Overseas (VSO) project, working as a teacher trainer in Katoke Teacher Training College (TTC), Kagera, in rural north-west Tanzania. My work involved designing courses and planning and delivering lectures in English language, pedagogy and communication skills. There was a new curriculum promoting 'learner-centred approaches' but no supporting teaching and learning materials. As much as possible, I tried to trial example or 'model' lessons in the local primary school before presenting them to student teachers to ensure they were realistic approaches for the challenging circumstances facing teachers in many government primary schools, e.g. minimal resources and very large classes. I quickly and drastically adapted my own pedagogical practices in response, tried my best to support the student teachers but could understand why they might feel uncertain about adopting my approaches.

After two fascinating, rewarding, frustrating, enlivening years, I returned to the UK and enrolled in a Masters of International Education and Development course. I was eager to understand more about the forces and factors that shape education policy and classroom practices, and to find ways of connecting these to pupils, student teachers and teachers like those I had got to know. It seems this is not a unique path. Angeline Barrett (2005b), Sharon Tao (2013) and Frances Vavrus (2021), all influential in this study, document similar practitioner – researcher trajectories in the development of their knowledge and understanding of Tanzanian education, and in particular of Tanzanian teachers.

In 2018, the University of Glasgow advertised a PhD scholarship attached to its *Sustainable, Healthy, Learning Cities and Neighbourhoods (SHLC) project,* which aims "to strengthen capacity to address urban, health and education challenges in neighbourhoods across fast-growing cities in Africa and Asia" (Nesterova and Young, 2020, p. 1). Tanzania was one of the partner and case countries. I

applied, was successful and my Tanzanian story re-opened. I returned to Kagera, this time to rapidly-urbanising Bukoba town, and my story reconnected with others', for example, my former student, Hereneus, from Katoke TTC, now a primary head teacher who became a research associate on my project.

Chapter overview

This chapter has set out the overall agenda, gaps, the global and national context, and a bit of my own personal relationship with Tanzania.

Chapter 2, *Learning*, reviews and critically engages with the international literature on learning and identifies the key theories, approaches and debates that frame some of the fundamental issues of relevance to this study of in-school and out-of-school learning in urban Tanzania. The dominant contemporary global discourses of Quality Education and the SDGs, which frame learning as a global priority, are presented and critiqued. I then look at the fundamental, but often absent, question of the purpose of education as well as at the multiple meanings of learning within education and how our understanding of what learning is, has implications for policy, research and practice. The chapter ends with a focus on sites of learning, laying the foundations for this study of *'learning spaces'* by highlighting the situated-ness of learning. In Chapter 3, the focus shifts to *Pedagogy* and the complex processes that support children's learning in the classroom. Robin Alexander's dual frameworks of pedagogy as ideas and practices (2008) inform this study's conceptual understanding of pedagogy and are laid out and justified here. Inherent in these frameworks, and explored in the chapter, are the ways that pedagogy is embedded in its social and cultural context. A theme running throughout these two chapters of literature review is the neglect of children's voice. Children are at the centre of learning and pedagogy debates but their perceptions and experiences are seldom heard.

Another idea that permeates Chapters 2 and 3 is that a study of learning and pedagogy as situated and contextual must, by its very nature, include and try to grapple with an explosion of related and intertwined ideas. Since context is key in learning and pedagogy, the scope of this study needs to accommodate the historical, geographical, social and cultural across local and global scales. In an attempt to do this, Chapter 4, *A spatial approach to understanding learning*

and pedagogy, presents my exploratory spatial framework; an educationalist's view of and tentative journey into space as relational and socially produced. I lay out the reasons for choosing a spatial lens for this study, emphasising the advantages of being able to identify and hold multiple phenomena, or trajectories together to explore how their interactions produce distinct spaces, and what the implications are for learning and pedagogy in those spaces. Doreen Massey's three propositions of relational space (2005) are introduced here and I detail how I have applied them to conceptual approaches to learning and pedagogy to create the theoretical and analytic frameworks for this study.

Chapter 5, *Tanzania: education, learning and pedagogy* moves onto the specific place of interest in this study, Tanzania. After broadly 'setting the scene' of Tanzania as a country, I present and discuss many of the defining characteristics of the education system, informed by the comprehensive approach of Alexander (2000). The ideas in Chapters 2 – 5 frame the overall conceptual and contextual approach to the study. Chapter 6, *Methodology*, presents the research design, explaining and describing how the use of qualitative Comparative Case Study and multiple creative methods of data generation and analysis are used to answer the research questions.

I present the main findings in Chapters 8, 9 and 10 and Chapter 7, *Kagera, Bukoba, Mpya and Zamani primary schools* serves as bridge between the methodology and findings, providing detail of Kagera region, Bukoba town, the site of the study, and the two primary schools which serve as 'case hubs'. Linking back to the trajectories in Chapter 5 on Tanzania, and the earlier global discourses, we begin to trace trajectories across scales, zooming in on 'the local' but not losing sight of its wider temporal and spatial connections. Chapter 8 presents three pupil case studies, or *pupil 'stories-so-far'*. Each one follows the children in and across home, neighbourhood, school, classroom and research spaces.

Chapters 9 and 10 are prefaced with additional discussion of key decisions and definitions that informed the analysis and representation of the findings, using a heuristic device of 'trajectories of togetherness'. Chapter 9, *Trajectories of Togetherness,* focuses on broad themes of togetherness across home, neighbourhood and school, exploring community and social cohesion; national

and ethnic group identity; school community and identity; and shared responsibility. Each of these trajectories is examined to see how it interacts with other trajectories to produce distinct spaces and specific social effects. Chapter 10, *"Are we together?" Togetherness in the crowded classroom,* moves into the classroom and presents the ways in which trajectories interact and pull in complementary and conflicting ways to affect learning and pedagogy. It looks at the human and non-human actors and trajectories which produce the classroom space. I present what this bundling and negotiation of trajectories looks like, and the extent to which pedagogy is co-constructed by teachers together with pupils, again to ensure that children are given space and visibility in this study of learning and pedagogy.

Chapter 11, *Conclusion,* draws together the most important discoveries from this study, linking back to the research questions, and putting forward the contribution this study makes.

Chapter 2. Learning

Introduction

> If we're stuck, only able to talk about learning if it comes in classrooms, with curricula and teachers and grades and exams and problems posed by teachers for others, and all that apparatus of schooling, we're impoverished in our ability to consider all of the activities that we engage in, and all the rest of our lives, which are also matters of learning but which it's hard to recognise and hard to talk about (Lave, 2012).

> The premise is that schooling and education is linked: a child who spends more years in school is thereby expected to acquire more education - more skills, more capabilities, more competencies. Yet, tragically, it has been demonstrated, again and again that this is not always the case. Schoolin' ain't learnin' (Pritchett, 2013, p. 2).

The two quotes above illustrate one area of consensus: we cannot equate learning with schooling, but from two polar standpoints and with very different justifications. Lave is highlighting the richness to be gained by looking at learning more broadly. Pritchett is pointing to the 'learning crisis' in low- and middle-income countries (LMIC) where massively expanded access to schooling has not produced accompanying gains in pupils' learning outcomes. This latter 'learning crisis' stance represents the dominant discourse in the field of education and international development (Benavot and Smith, 2020, Sriprakash et al., 2020). However, Lave's broader conceptualisation serves as a useful counter balance to frame this chapter on learning.

This chapter reviews and critically engages with the international literature on learning and identifies the key theories and debates that frame some of the fundamental issues of relevance to this. The focus of this and the subsequent chapter looking at pedagogy and space, is predominantly conceptual and broadly international.

This chapter starts by locating the study within the wider literature on learning framed in global discourses such as Quality Education and the Sustainable Development Goals. The second section looks at the fundamental, but often absent, question of the purpose of education. Section three identifies the main ways that 'learning' is understood, identifying diverse epistemological

approaches, each with distinct implications for policy, research and practice. The final section focuses on sites of learning, recognising the importance of learning outwith the "apparatus of schooling" (Lave, 2012) and highlighting the relationships between home and school learning spaces.

Learning as a global priority

The global learning agenda sits alongside the discourses on quality education which have largely been framed by international agendas such as Education for All (1990-2015) (EFA[1]), the Millennium Development Goals (2000-2015) (MDGs) and now the 2030 Agenda for Sustainable Development and accompanying Sustainable Development Goals (2015-2030) (SDGs), and through multilateral institutions involved in setting, monitoring and mobilising resources for these goals such as the World Bank and United Nations (UN) agencies. In 2015, the World Bank and six UN agencies, including UNESCO, hosted the World Education Forum and as a result, the Incheon Declaration was adopted, setting out a global vision for education up until 2030 (UNESCO et al., 2015). The current education goal (SDG 4), under that declaration and the SDGs is to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2020, p. 5). The SDGs, like EFA in 2000, have placed 'quality' at the core of their approach, in words, but it continues to be misunderstood and under-examined in practice, and this has been a concern throughout the EFA, MDG, SDG journey. Earlier UNESCO frameworks of quality education focused on inputs and outputs such as pupil-teacher ratio and grade 5 'survival rate' or literacy rates rather than complex classroom processes or pedagogy (Alexander, 2015). That these aspects were also easier to monitor led to criticism that the measures for assessing quality did not capture what really matters in teaching and learning, but still drew an enormous amount of attention (Alexander, 2015, Barrett, 2011, Tikly and Barrett, 2011).

In this study, I align myself with those who have questioned a simple linear model of quality education and have embraced the complexities and messiness of classroom teaching and learning processes. In particular, I value Tikly's (2011)

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[1] The first set of EFA targets were adopted at the *World Conference on Education for All* in Jomtien in 1990, then, after a decade of work but still with a long way to go, new EFA targets were set in 2000, as part *of Dakar Framework for Action: Education for All* (The World Bank, 2000).

context-led model (see Figure 2) which not only recognises these processes but also foregrounds home, community and policy environments and the interfaces between them and the school environment. He conceives of quality education as a "tasty soup" where the outcomes depend on the 'ingredients' (inputs), the processes and the interaction across enabling environments (Tikly, 2011, p. 11).
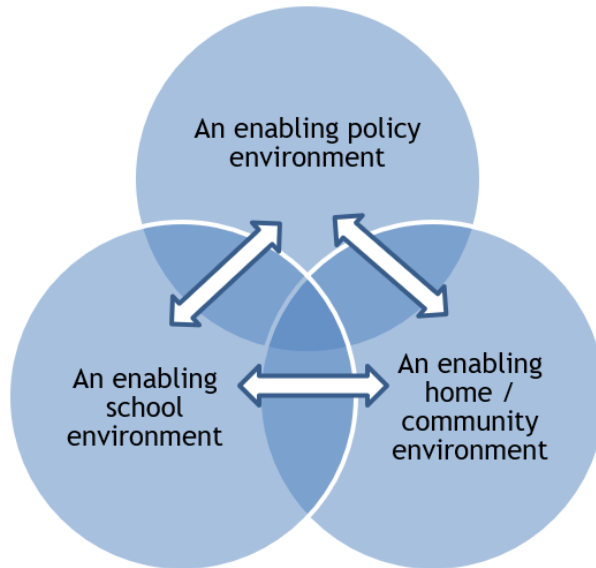
Figure 2 – Tikly's context-led model of quality education (2011)

Quality education remains central to the SDGs and education and learning goals and targets have again been laid out and agreed by all 193 UN member states. There are two main outcomes-based targets of particular relevance to primary children within the broad education goal (see Table 1). Target 4.1 focuses on primary and secondary school completion and achievement of relevant learning outcomes and Target 4.7 focuses on knowledge and skills to promote sustainable development.

Table 1 - Extract of SDG 'Outcome target' 4.1 and 4.7. Source: UIS (2018)

SDG 4	To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all by 2030	
	Outcome targets	
Target theme	4.1: Free, equitable and quality primary and secondary education	4.7: Knowledge and skills needed to promote sustainable development
Target	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.	By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

Target 4.1 is measured using a quantitative indicator of minimum proficiency in literacy and numeracy, as a proxy for all "relevant and effective learning outcomes" (UIS, 2018, p. 22) across all curriculum content. Target 4.7 is measured, not by achievement of learning outcomes in these areas, undoubtedly an intimidating task, but by their inclusion in policy documents such as curricula.

As we saw in the earlier debates and dilemmas of measuring quality education, the tension between recognising complexity but needing a standardised measure continues. In 2005, UNESCO themselves acknowledged that:

> Tests of cognitive achievement are incomplete proxies for the quality of education. They tell nothing about values, capacities or other non-cognitive skills that are important aims of education (UNESCO, 2004, p. 46).

However, fifteen years later, the same proxies are being used. Although the SDGs have been widely adopted, there has been considerable concern about the effect of having achievement of a complex target such as inclusive and equitable

quality education measured primarily by the narrow quantitative indicator of proficiency in reading and mathematics (Benavot and Smith, 2020, Sayed and Moriarty, 2020, Boeren, 2019, Tikly, 2015). These voices overlap and add to those who expressed concern about the reductionist nature of proxy indicators for previous global quality education goals (Alexander, 2015, 2008, Barrett, 2011, Tikly, 2011).

These debates about measurement of achievement are, of course, not specific to global education goals; they constitute a central concern in formal education within national education systems too, often in terms of accountability and examinations. Biesta, locating us currently in the 'age of measurement', sums this up well, in words that can be applied to national and global contexts:

> We live in an age in which discussions about education seem to be dominated by the measurement of educational outcomes and that these measurements play an influential role in educational policy and, through this, also in educational practice. The danger of this situation is that we end up valuing what is measured, rather than that we engage in measurement of what we value (Biesta, 2010, p. 26).

Concerns around measurement and assessment loom large in the debates around learning in the SDGs and it can seem like more attention is paid to checking if learning goals have been achieved than to processes to support and enable children's learning, such as strengthened teacher education and pedagogy. As Barrett et al. (2015) point out, "children do not learn simply because they are assessed - they learn if assessment information results in changes and improvements in pedagogy" (p. 235).

Of course, many countries have their own national systems for measuring learning outcomes, most commonly through national examinations. During the planning stages for post-2015 education goals, it was suggested that measures of learning outcomes should use national examinations (Barrett et al., 2015). This was not taken up, even though examinations as a powerful lever on classroom practices has been well documented (see Somerset, 2011, Kellaghan and Greaney, 2005). A possible reason for the lack of uptake is concerns regarding the quality of national examinations compared with well-resourced international assessments (Somerset, 2011).

It is understandable that national examinations, matched as they are, or should be, to specific national curriculum objectives, are not the right tool for the job of assessing global learning outcomes goals, however, they have a significant impact on what happens in the classroom. Put simply: "high-quality examinations, help promote high-quality pedagogy; whereas low-quality examinations promote low-quality pedagogy" (Somerset, 2011, p. 144). The negative backwash of high-stakes examinations which are largely tests of recall is often cited (e.g. Vavrus, 2021, Sayed and Moriarty, 2020, Vanner, 2018, Bartlett and Vavrus, 2013a) but unfortunately, education reforms often omit comprehensive examination reform causing further misalignment between essential components of the education system and hindering improvements in quality (Westbrook et al., 2013). Further, the reductionist approach to measuring learning outcomes taken in the SDGs validates similar approaches in national systems, re-emphasising cognitive assessments and examinations. This is a clear example of how decisions made at a global level can affect decision-making at national policy and classroom practice levels, as we will see in Chapters 9 and 10.

Education and learning – what's it all *for*?

With so much time, effort and money spent on assessing if learning is happening or not, it raises the question of the purpose of that learning - what is it all for? This is a sticky question which can be approached in different ways. For example, you can consider the wider societal purpose of education, or the benefits and intended outcomes of education for the individuals being educated. For the former, the purpose of education is linked to what evidence shows can result from education. Alexander pithily sums up the outcomes that are associated with education according to the global EFA agenda:

> The entire EFA effort is predicated on evidence that education, and especially literacy, reduces poverty, boosts growth, increases employment prospects, enhances health, reduces child mortality, narrows the gender gap and much else (Alexander, 2015, p. 253).

These wide-ranging effects are also why education and learning are seen as central to the 2030 Agenda, "recognizing the important role of education as a

main driver of development and in achieving the other proposed SDGs" (UNESCO et al., 2015, p. 7).

Despite the language of global efforts and the seeming consensus based on nations signing up to global agendas, it does not mean that there is one unified approach or shared understanding of exactly what children should learn, how or what that learning is *for* – nor, arguably, should there be. An example at the heart of this is the uneasy tension between the historical and epistemological backgrounds of the main institutions behind the SDGs: the World Bank and the United Nations. These two institutions form a powerful force to mobilise resources and action in the 2030 Agenda, but also illustrate two of the main discourses that have shaped approaches to quality education and learning: human capital theory and human rights-based approaches. The former, long and strongly associated with The World Bank, sees education primarily for its economic, instrumental value, whereas the latter, a pillar of UNESCO's approach, sees education as a tool for unlocking children's potential, leading to social transformation and social justice (Sayed and Moriarty, 2020).

These two discourses still permeate much of the research, monitoring and evaluation of education and its outcomes, and understanding the principles and epistemological positions underpinning national and international decisions about what and why children learn at school is an essential part of this study. In Chapter 5, for example, we will see the push and pull of these discourses within Tanzania's education policy and curricula. Both discourses, and human capital theory in particular, look forward to some kind of future transformation, economic or social. However, and here the rights-based approaches are in a stronger position, considering that an increasing number of children are spending an increasing amount of time in education, there also needs to be a focus on the experience of *being in* education itself, and benefits to the individual and society whilst still a child, not just of what a child might become or what he or she might have to offer in the future.

This leads us to another matter linked to quality education - the 'learning crisis', raised in the introduction. As noted earlier, this is associated with the rapid expansion of schooling globally but the failure of this schooling to translate into

improved learning outcomes. The World Bank's 2018 World Development Report, dedicated to education for the first time, lays out its view of the crisis:

> Worldwide, hundreds of millions of children reach young adulthood without even the most basic life skills. Even if they attend school, many leave without the skills for calculating the correct change from a transaction, reading a doctor's instructions, or interpreting a campaign promise—let alone building a fulfilling career or educating their children (The World Bank, 2018, p. 3).

It goes on to refer to this as "a moral crisis" and claim, somewhat paternalistically, that "any country can do better if it acts as though learning really matters" (The World Bank, 2018, p. 3), showing that the blame for this crisis, these failures in learning, sit squarely in the failing nations (echoing one of the stories which opened this thesis). This discourse has been criticised from a number of angles, with commentators generally keen to acknowledge the significant challenges facing children, teachers and education systems but disputing the overly-simplified, selective, unnuanced and harmful rhetoric of the 'learning crisis' (Benavot and Smith, 2020, Sriprakash et al., 2020, Silova, 2018, Lewin, 2018, Ginsburg et al., 2018). In particular, it is noted that current accounts of the 'learning crisis' do not recognise the diverse contexts and complex causes of the challenges faced and instead locate the crisis ahistorically and uncritically (Benavot and Smith, 2020, Silova, 2018). This is particularly offensive considering the harmful impact (see Robertson et al., 2007) in the past of the World Bank policies and interventions, on the education systems of the very countries they are now saying, 'can do better if they try harder'. In his response to the report, South African scholar Salim Vally says:

> For those of us in Africa, some acknowledgement at the very least, of the World Bank's historical complicity through the devastation wrought by structural adjustment, the support for user fees, large class sizes, the discouragement of higher education, and caps on the salaries of teachers would show not just mere contrition but would signal an openness to learn from the mistakes of the past (Salim Vally in Ginsburg et al., 2018, p. 283).

This is a valuable reminder that, although there may be common global goals, countries are on their own historical trajectories, and that a more honest, less historically selective, decolonised approach to tackling education challenges would be welcome.

One final aspect which I would welcome more of in accounts of the 'learning crisis', and that this study takes initial steps to address, is consideration of the experience of the children who are the actual ones in school, many learning (but what and what for?) but many others not learning, not only because of the future implications of this wasted opportunity but also because of what it must feel like to be those children, attending day after day, for years, but not engaged in fulfilling learning activities, and not achieving their own education goals. Here, it can help to take a broader view of schooling and education in terms of our understanding of childhoods:

> Childhood is increasingly an institutionalised form of being, … children … are attending institutions as individual persons, whose time must be acknowledged in its own right (Qvortrup, 1993, p. 122-123).

This focus on children's time, their lives, which have an intrinsic value in their own right separate from their future selves, serves as a useful reminder that children's perceptions and experiences of learning and education matter, not just the measured outcome of that education. Education needs to recognise childhoods as periods of both 'being' and 'becoming', considering present and future timescapes (Uprichard, 2008) and the purpose of education should be clear and meaningful to children themselves during their school days. Uprichard's summary frames this simply but powerfully: "children do become adults and the kinds of adults they are likely to become are shaped by the kinds of childhoods they are experiencing today" (2008, p. 311).

So far, in attempts to lay out some of the main discourses framing learning agendas globally, we have seen mention of children developing reading proficiency to reduce child mortality rates, as well as developing skills to promote peace and non-violence, and the concern that children are not learning to calculate correct change or interpret political campaign messages. Amongst all this, it is hard to see a clearly articulated purpose of education, and what children are learning *for*. This brings us to Gert Biesta's call for a grounding, fundamental focus on purpose in any discussion of learning (Biesta, 2010, 2015).

Biesta complains about 'learnification' and the way that the vocabulary of 'learning', e.g. pupils as 'learners' and schools as 'learning environments', has made its way into the education discourse as if 'learning' is the unproblematic

equivalent of education itself (Biesta, 2015). He urges consideration of the content, purpose and relationships involved in education in order to avoid looking at learning in the abstract, individual and process-focused sense (Biesta, 2010, 2015):

> The point of education is not that students *learn* … The point of education is that students learn *something,* that they learn it for a *reason,* and that they learn it *from someone* (Biesta, 2015, p. 76).

Of these three questions of *what, why* and *who*, he prioritises the *why*, the *purpose* as the most fundamental; without a clear focus on purpose, we cannot make decisions about appropriate content or conducive relationships (Biesta, 2015). He puts forward three 'domains' of the purpose of education as a starting point for discussions of the aims and ends of education in diverse contexts. They are: *qualification, socialization* and *subjectification* (Biesta, 2010). It is interesting here to map these domains onto other frameworks of the purpose of education. The Delors et al. report, *Learning: The treasure within* (1996) which was drawn on in early EFA planning and discourses and was instrumental in UNESCO's conceptualisation of quality education (UNESCO, 2004), is particularly useful here. It presented 'four pillars of education': *learning to know, learning to do, learning to live together* and *learning to be* (Delors et al., 1996). It is worth flagging up that these two models are directed at different forms of education: Biesta is mainly concerned with formal school education, whereas Delors et al.'s attention spans childhood and adulthood, as well as home, school and workplace spheres of learning.

Figure 3 shows the mapping of Biesta's three domains in blue and Delors et al.'s four pillars in green.
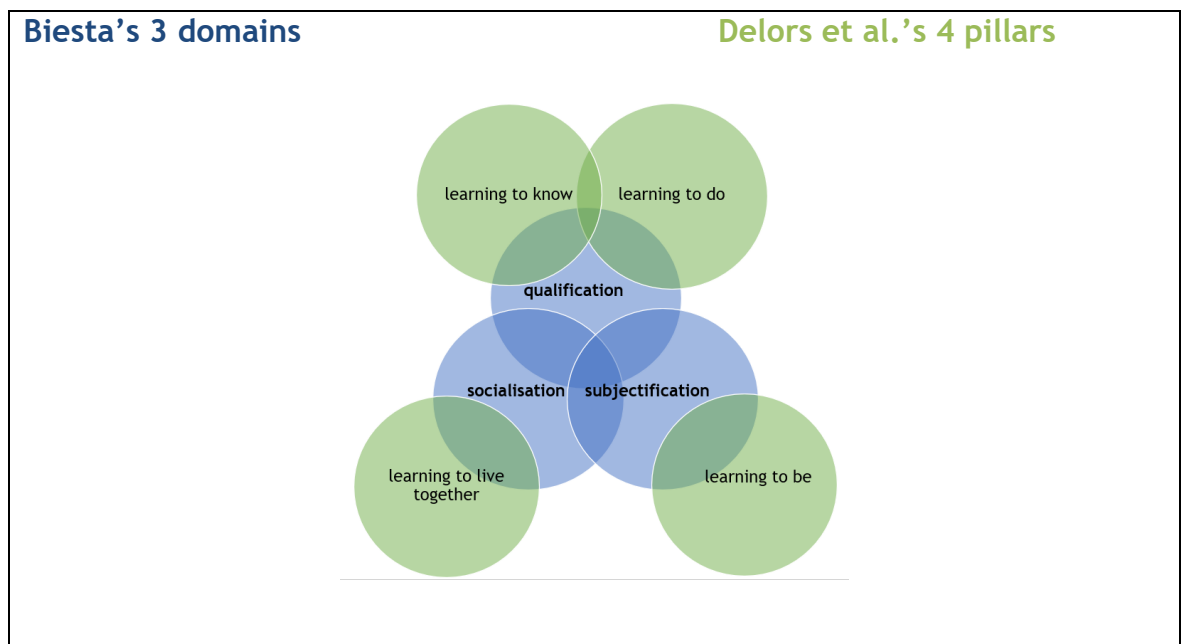
Figure 3 - Mapping of purpose of education - Biesta and Delors et al.

Biesta's first domain is *qualification*, which refers to children gaining the knowledge, skills and dispositions to 'do' something: qualifying them for a specific vocation or more generally preparing them for life in the modern world. This is the domain most likely to be assessed through high stakes examinations or through national or international assessments. This domain links strongly to the human capital approach to education goals mentioned earlier. The overlap with both *learning to know* and *learning to do* is clear here, and both models specify the importance of broad general knowledge as well as more specialised knowledge and skills, and essentially, the ability to apply them. A useful addition in Delors et al. (1996) is the skills related with *learning to learn*, which have more recently been flagged as potentially the only real '21st century', or "future-proof learning" skills that are needed (Kirschner and Stoyanov, 2020, p. 479). These metacognitive skills involve, "young people needing to be able to reflect on their own learning process and achieve their own goals, monitor their progress toward those goals, and achieve them" (Kirschner and Stoyanov, 2020, p. 502) in order to prepare for 'not yet existing professions'.

Both Biesta and Delors et al. highlight that, in any education system, there are always 'trade-offs' across the component parts of their model but both

emphasise that prioritising this area of qualification above the others is a potentially very harmful approach:

> I wish to highlight once more that the current emphasis in many countries and settings on just enhancing academic achievement — i.e. performance in the domain of qualification — comes at a very high and potentially too high price (Biesta, 2015, p. 79).

> Formal education systems tend to emphasize the acquisition of knowledge to the detriment of other types of learning; but it is vital now to conceive education in a more encompassing fashion (Delors et al., 1996, p. 37).

These warnings are not only about a narrowing of educational purpose to focus on academic achievement, which might in itself be effective and lead to improvements in performance, but also about the wider message that is conveyed about what is "desirable for the education of our students" (Biesta, 2015, p. 79). It is also worth noting that there may be other structures and policy decisions made in an education system that can convey powerful messages which may align or misalign with the *qualification* purpose of education. A key illustration of this, of particular relevance in the Tanzanian context is language of instruction. The curriculum may be directed towards achievement of specific knowledge and skills, but if the language of instruction does not support students' learning, then they are unlikely to be attained, and important messages about language status and identity will be conveyed (see Adamson, 2020a). For example, Brock-Utne (2007) reflects on the relationship between language of instruction and national education goals for knowledge and skills acquisition in Tanzanian secondary education:

> If the aim is the stupidification of the Tanzanian labour force, the use of English, a foreign language to the students and a language poorly mastered by the teachers, seems to be an excellent strategy. If the aim is to create a labour force with critical abilities and creative qualifications, the language of instruction policy is unlikely to have such an outcome (Brock-Utne, 2007, p.487).

This is another strong example of the importance of alignment and balance across domains and across wider parts of an education system.

Biesta's second function, *socialisation,* maps on to *learning to live together*, which Delors et al. claim to be the most important of the four pillars,

constituting the foundation of education: "understanding of other people and an appreciation of interdependence […] in a spirit of respect for the values of pluralism, mutual understanding and peace"(Delors et al., 1996, p. 37). However, here the different purposes and audiences of their models becomes clear. Delors et al. intentionally set out to present a utopian view of the power of education, whereas Biesta's model has a more descriptive and discursive purpose. As such, Biesta notes *that socialisation* could be planned or unplanned but either way, "education inserts individuals into existing ways of doing and being" (Biesta, 2010, p. 20); children become part of existing social and cultural structures, taking on particular norms, values and traditions. The unplanned aspect of this, for example the hidden curriculum, is obviously missing in global goals and in national curricula but can have powerful impact. Vavrus defines the hidden curriculum as "the implicit lessons that convey dominant cultural values and social norms" (2021, p. 155). One example is related to corporal punishment and Vavrus goes on to ask if, when corporal punishment becomes an everyday practice, might it ultimately be more impactful, in terms of social learning, than anything in the formal curriculum?

Finally, as well as becoming a part of something bigger than them, in the domain of *subjectification*, children also learn to "exist as subjects of initiative and responsibility rather than as objects of the actions of others" (Biesta, 2015, p. 77). This final domain, seen by Biesta as the opposite of socialisation, may sit less neatly in contexts where the individual is subordinate to the group, for example in African world views based on Ubuntu. This quote beautifully highlights the contrast and possible conflict between Biesta's socialisation and subjectification:

> There could hardly be a greater contrast than between Decartes'[sic] contextless mentalist individualism in Cogito, ergo sum (I think, therefore I am) and the African contextually pregnant, social constructivist relationalism of umuntu umuntu babantu (I am because you are) (Avenstrup 1997, in Brock-Utne, 2016, p. 30).

However, Biesta's framework is not prescriptive, and as we will see later, multiple ideologies can co-exist in "uneasy tension" (Alexander, 2001, p. 521). Delors et al. link their increased individual independence in *learning to be* with an increased personal responsibility to achieve common goals, aligning rather

than opposing *socialisation* and *subjectification*, and more importantly, relate this pillar to releasing the untapped potential, or treasure, within every individual. They make it clear that this is not for the purpose of economic and financial gain, but for a "deeper and more harmonious form of human development" (Delors et al., 1996, p. 11).

Laying out these different approaches to understanding the purpose of education helps to frame the Tanzanian-specific approach presented in Chapter 5 but also provides a valuable reference for the findings and discussions in Chapters 8,9 and 10 which identify conflicts and gaps between intended purpose of education and learning goals, and pupils' and teachers' perceptions and experiences of learning and its purposes in and out of the classroom.

Multiple meanings of learning

As we saw with quality education, how we understand a concept shapes how we work with it in policy, practice and research. If we are trying to galvanise efforts towards improving learning, then it is important to share a common understanding of what learning is. Tikly argues that how learning is understood has implications for how it is researched and measured, and how evidence from learning research is valued and used (Tikly, 2015). We will see parallels with the complex area of pedagogy later too: "one cannot measure something without first being clear about its nature" (Alexander, 2008, p. 37).

In terms of understanding learning in the dominant discourses led by the World Bank in its education strategy, Tikly, in response to the lack of attempts to negotiate a shared understanding of learning, or how we come to know what it is, calls for more explicit accounts of the ontology and epistemology of learning (Tikly, 2015). He divides existing approaches into those of 'empiricists' and 'interpretivists', and to some extent, sketches out overlaps between these and the previously mentioned human capital and rights-based approaches, whilst also critiquing both. He places his own 'laminated learning system', a critical realist approach, as a pragmatic 'middle-way' (though skewed towards interpretivism in his account) between them. In this review, I find his categories useful to explore multiple meanings of learning, especially his 'empiricists' who dominate the global learning agenda.

In Tikly's 'empiricists' group, generally, are the approaches to learning taken by the economists and, more recently the cognitive neuroscientists. In the World Bank discourse of learning, this is the dominant approach and is largely 'theory-free', based as it is on 'robust' medical research and, the 'gold standard' of Randomised Control Trials (RCTs) where, "once the 'robustness' of methodologies has been established, empirical data take the form of self-evident 'facts'" (Tikly, 2015, p. 239). Good, high-profile examples of the recognition of RCTs in education can be seen in the work of the 2019 Nobel prize winners Abhijit Banerjee, Esther Duflo and Michael Kremer whose approach to fighting global poverty involves breaking down complex issues into smaller, more manageable, researchable questions, answered through targeted experiments (The Royal Swedish Academy of Sciences, 2019). An example in education includes providing information to students and parents to improve learning outcomes in literacy at a low cost (J-PAL, 2020). The term 'low cost' signals an important direction of travel for use of the evidence base (see the World Bank (2020) and Global Education Evidence Advisory Panel (GEEAP, 2020) for more on cost-effectiveness and 'Smart Buys').

I strongly concur with Tikly (2015) that though these RCTs, and this approach, can be of use as part of a wider body of evidence, they should be used with caution. Only looking at what can be measured and treating a complex 'open system', like education, like a closed laboratory system is fundamentally reductionist. Further, by breaking down the complexities into small researchable chunks, they are neglecting the importance of strong alignment across different parts of the system. They also reflect a shift back to the linear model of quality, rather than Tikly's earlier "tasty soup" model (2011, p. 11). Tikly summarises:

> RCTs may show at best surface level patterns of 'what works' but they cannot tell researchers how or indeed why interventions 'work' for different groups of learners and under what specific conditions as these are subject to constant flux (Tikly, 2015, p. 239).

The other body of 'empiricist' evidence that similarly has much to offer as *part* of a wider body, comes from cognitive neuroscience and educational psychology. Kirschner and Hendrick (2020) offer a simple definition of learning: "learning, simply stated, means that there has been a change made in one's long-term memory" (p. 166). The approaches here are concerned with how the brain

processes information. 'Cognitive load theory', for example, is concerned with how guided instruction can reduce the load on working memory to enable new information to be integrated in existing schema in long-term memory (Kirschner and Hendrick, 2020). This has important implications for teaching and learning of both knowledge and skills as the theory goes that skills, such as problem-solving or other '21st century skills', cannot be learned on their own; they are totally dependent on domain-specific knowledge (e.g. Sweller, 1988). Since these processes are biological, instructional approaches that support them are seen as being universal: "Human brains process information in much the same way, and similarities may be more important than individual or cultural differences" (Abadzi, 2006, p. 8). The work of Helen Abadzi whose work has been influential in the World Bank's recent education strategies, is seen by Tikly as being deterministic, and certainly the title of her World Bank published book, *Efficient learning for **the poor*** (my emphasis)*: Insights from the frontier of cognitive neuroscience* (Abadzi, 2006) leaves me feeling very uncomfortable about such a homogenising approach. However, these important new bodies of evidence should not be ignored.

Another thing that strikes me about the cognitive approaches here, and linking to Biesta's call for a focus on the purpose and content of learning, is the stark contrast in the language used. I think it is unlikely that any national government or global organisation such as UNESCO, would phrase their overarching learning goals for primary children in terms of 'changes in long-term memory'. National curricula, for example, as inherently political documents, tend to more broadly articulate governments' goals and aspirations for their citizens' welfare, social cohesion and economic prosperity (Barrett et al., 2007). And here I circle back to the goals laid out earlier by EFA and the SDGs. Those broad, future society-shaping goals cannot be reduced to the cognitive functions of changes in long-term memory. However, as previously discussed, the focus on literacy and numeracy as the measure of quality education indicates that some form of reductionism has already taken place.

Another way that these 'empiricist' global perspectives on quality education and learning could be seen as narrow, is that they omit the perspectives of a fundamentally important group – children. In the last 30 years, since the rights of children were enshrined in The United Nations Convention on the Rights of the

Child, there has been an overall increase in children being asked about their lives and consulted about services provided for them (Alderson and Morrow, 2011). However, in LMICs, in studies of learner-centred education (Schweisfurth, 2011) and teaching and learning more broadly (Westbrook et al., 2013) it has been found that children's voices have been largely omitted. Importantly, on the occasions when children are consulted, they tend to focus on affective factors of learning: how the experience felt in terms of easiness or interest or how their relationship with the teacher impacted on them (Alexander, 2008). This suggests that what a 'quality education' looks like for children may be different from policy-makers and other agenda-setters. This also suggests that placing children's concerns centrally recognises their experience of *being* children, and not what they can produce, become or contribute later as adults (Punch, 2003, Qvortrup, 1993). This is a refreshing change to the 'rates of returns on investments' discourse in Human Capital approaches to learning goals (see Sayed and Moriarty, 2020) which focuses on what society can get out of these children later. Children are spending more and more time in school, and this is having impact on their and their family's lives in multiple ways. "Society is through schooling demanding their work, their energy, their creativity and intelligence" (Qvortrup, 1993, p. 122), so it seems the very least we can do is listen to and learn from their experience. This study aims to do just that.

Alexander highlights the need for the focus on teaching and learning to be on the classroom itself and the nitty gritty of everyday pedagogical practices. Likewise, in Tikly's 'laminated learning system' (2015), drawing on Bronfenbrenner's model of child development, he positions the individual, with both biological and social learning characteristics, at the centre of five concentric circles of systems from micro to macro. An adapted version is presented in Figure 4, and as well as a brief description here, this concentric circle model will be revisited in Chapters 3 and 4. Of particular relevance and appeal to this study, is the prioritisation of context, and multiple levels of context, as well as interaction between those levels.
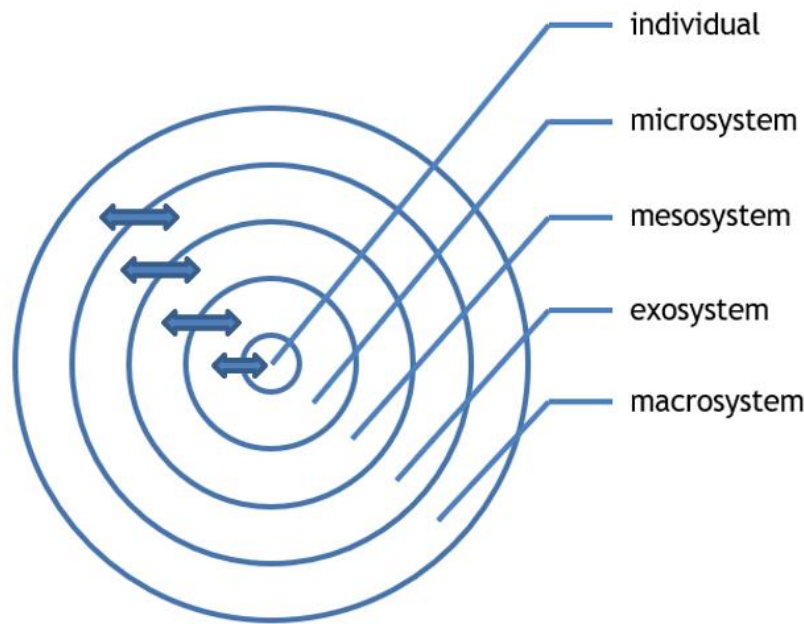
Figure 4 - Tikly's laminated learning system (2015)

The *microsystem* represents activities, roles and relations experienced by the learner at home, in their community and at school, and takes a broad view of pedagogical practices across these sites of learning, i.e. not only classroom learning involves pedagogy. The *mesosystem* is concerned with links and processes between learners' settings, for example, links between home and school. The *exosystem,* mediated by the micro- and mesosystems, comprises the structure of the education system and national policy frameworks, including teacher education, curriculum and assessment. The *macrosystem* is constituted by the political economy, culture and values, and national, regional and global education discourses, and these can have far-reaching effects across the other systems, but are also mediated by components of those systems. For example, as mentioned earlier, "international assessments have a washback effect on pedagogy and learning but this is mediated by the effects of national assessment systems" (Tikly, 2015, p. 246). Finally, and this is not included in the diagram, still based on Bronfenbrenner's work, but now integrating components from his later model, the *chronosystem* adds an additional dynamism and includes changes in learning and the environment over time. This multi-level ontology of learning also features interactions between sub-systems (shown by the arrows) making this a relational model of learning. Again, I align this study with Tikly's thinking, again, foregrounding contexts and interactions. However, I will build

on this work in the theoretical approach developed in the following chapters to enable a new way of looking at learning across spaces.

Learning spaces

In *Education and learning – what's it all for?*, I referred to the usefulness of Biesta's three questions to avoid the 'learnification' of education discourse; learning *what, why, from whom*? (i.e. content, purpose and relationships) (Biesta, 2010, 2015). One addition I make here, is *where*. It has been acknowledged that much of the attention to children's learning in global debates has focused on learning that occurs, or is supposed to occur, *in* schools (Barrett et al., 2015). Perhaps this seems obvious as the formal setting for most primary education is the school, and it is here that millions are invested to affect changes in children's learning, but in this study, looking across home, neighbourhood and school spaces, it is a necessary addition. Considering the *where* of education, allows us not only to examine the physical and social environment of the school or home (related to Tikly's microsystem), and raise questions about the relationships between different sites (see Tikly's mesosytstem), but, more importantly, it leads us to recognition that learning and knowledge is situated (Katz, 2004, Lave and Wenger, 1991, Brown et al., 1989). In the upcoming chapter, we will look at this home-school relationship in terms of alignment, or misalignment, of pedagogy and culture (e.g. Vavrus, 2021, Tabulawa, 2013, Alexander, 2000, Hufton and Elliott, 2000), but in this section the focus remains on learning.

Important to an understanding of learning context, and critical to this study, is a paradox at the centre of the discussion of school learning environments, summed up by Lave and Wenger:

> The organization of schooling as an educational form is predicated on claims that knowledge can be decontextualized, and yet schools themselves as social institutions and as places of learning constitute very specific contexts (Lave and Wenger, 1991, p. 39).

I will make my own attempt to break down the paradox as I see it, into a short series of four 'moves'. First, it has been established that schools are designed to develop the more abstract and complex knowledge and skills that cannot be

developed informally across generations (Dewey, 1916); schools can be seen as the "central interface between evolution and culture" (Geary, 2008, p. 179). As we saw in the goals of quality education section, schools aim to inculcate those skills that will ideally benefit individuals and societies now and in the uncertain future. This is the decontextualised knowledge that Lave and Wenger refer to. However, in the second move, it is also argued that knowledge is situated (Lave and Wenger, 1991) and context-dependent (Brown et al., 1989). So, from here, in the third move, we reach the position that the learning that occurs in school is dependent on the school context, and will therefore be of use within the bounds of that context:

> School and life have become two different cultures with different sets of rules, and this means that students cannot simply apply what they've learnt in one culture to another (reference to Brown et al., 1989 in Kirschner and Hendrick, 2020, p. 234).

This also implies that, without a concerted effort, school learning may only have limited use in school or other formal educational contexts. In Brown et al.'s (1989) metaphor, school can give children the tools but not necessarily the ability to use them in authentic settings. In a review on foundational learning in LMICs, Nag et al.(2014) found that decontextualised teaching, such as pupils copying answers without any connection to their wider world knowledge, had a harmful effect on pupil understanding and meaningful learning. They emphasised that this meaning gap they had identified in common practices in LMICs put the onus for understanding on the pupils:

> Since teaching is not typically explicit in making links between discrete concepts, children must map school-based lessons to 'out-of-syllabus' real-world information by themselves. Much is therefore left to unplanned experiences and spontaneous insight, and this in turn means that a lot depends on the child's own profile of strengths (Nag et al., 2014, p.14).

This quote sums up the fourth and final move of the paradox; without support to apply in-school learning in out-of-school contexts, the knowledge and skills gained will only remain of narrow use in formal school contexts. Although Nag et al.'s review is based on more recent cognitive theories of learning, these ideas are not new. Over 100 years ago John Dewey was warning of formal instruction becoming detached from its social function and becoming "remote and dead —

abstract and bookish" (Dewey, 1916, loc. 150). His concern that education could potentially become synonymous with "the acquisition of literacy" (Dewey, 1916, loc. 159) pre-empts some of the issues laid out in the 'learning crisis' section. A key question for educationalists then, and a guiding concern in this study, is how to ensure that the children's learning paths can be built to join the purpose of education with meaningful school learning and out of school application, ensuring an uninterrupted and supported learning trajectory.

The specific contexts of schools as 'social institutions and 'places of learning' (Lave and Wenger, 1991) obviously vary within and between countries. However, UNICEF's Child-friendly Schools projects which emphasise that, "schools must be anchored in the reality of their location in terms of culture, environment and links to families and the community" (UNICEF, 2009, section 3.1.1), also provide guiding criteria for a standard 'child-friendly school'. An earlier description of Quality Learning Environments divided these criteria into physical (e.g. facilities, resources and class size), psychosocial (e.g. safety from abuse, discrimination and violence, including corporal punishment) and service delivery (e.g. integrated health and nutrition programmes) categories (UNICEF, 2000). Considerations of these can be seen in SDG targets: the 'Means of achieving outcomes' targets on School Environment (4a) although, not all aspects are seen in the indicators. For example, proportion of schools with access to electricity and handwashing facilities will be monitored and measured, but there is not an indicator for the trickier area of pupil safety from corporal punishment (UIS, 2018).

Facilities and class size are considered in the first category but evidence has shown that even the relationship between improved facilities or reduced class size and pupil performance is not a simple one, and more often it is the interaction between physical facilities or resources and pupils and teachers that makes the difference (UNICEF, 2000, Beech and Artopoulos, 2016). Textbooks and other learning materials are an example where *availability* should not be seen as a proxy for *use*, and neither should be seen as guaranteeing improved learning outcomes unless part of an integrated approach (Milligan et al., 2018, The World Bank, 2018).

The number of classrooms and class size is of course an important element of the physical facilities and historically evidence has been mixed about the relationship between class size and academic achievement, tied up as it is with the 'kind' of teaching and learning that is being done, e.g. larger class size making more constructivist approaches including meaningful group work, more challenging (UNICEF, 2000). However, more recently, a review of pedagogic practices in LMICs found significant evidence that large class size, and related factors such as immovable desks, high noise levels and little time for marking were barriers to effective pedagogies (Westbrook et al., 2013).

Outside the main education and development literature, there is an interesting area generally referred to as 'teaching in challenging circumstances' which is mainly concerned with English language teaching (e.g. Kuchah and Smith, 2011, Sowton, 2021). Although 'teaching in challenging circumstances' work does not just look at physical factors, much of its focus is on large class size and lack of resources (Kuchah and Smith, 2011). This field challenges some of the deficit discourses in education and development literature which "refers to the widespread practice of focusing on obstacles and that which cannot be done rather than on opportunities and that which can be done" (Sowton, 2021, p. 3). Kuchah and Smith's paper (2011) is an excellent example of this. Kuchah's response to the challenging circumstances he faced in his secondary classroom in Cameroon, with 235 students, 20 textbooks and temperatures around 48 degrees Celsius, was to develop with his students a 'pedagogy of autonomy' (Kuchah and Smith, 2011), which tapped into individual students' needs and expectations, at the same time as recognising the strong collective sense of belonging in the whole class. Students not only learned about language and how to use it, but they also learned how to learn. Kuchah and Smith reflect:

> Large classes, the shortage or complete absence of material resources such as course books and technology … make it difficult for teachers to claim complete responsibility for what learners learn. As an African saying has it, *'A good father does not give his son meat. Instead, he gives him a bow and arrow, and teaches him to hunt'!* (Kuchah and Smith, 2011, p. 134).

As we saw earlier, in a recent critique of the '21st Century skills' discourse, learning to learn or metacognitive skills were highlighted as an essential area that education systems should be focusing on to prepare students for uncertain

futures (Kirschner and Stoyanov, 2020). Furthermore, and linking back to the earlier discussion of situated learning, they also emphasised, "linking learning with authentic, real-life situations" (Kirschner and Stoyanov, 2020, p. 503). Large classes present a significant challenge for teachers, both in terms of their motivation and their options for pedagogy. I am not suggesting that individual teachers need to take on 'pedagogies of autonomy' as Kuchah did, but I do want to make the point that it is important to prepare teachers and pupils for the contexts they must immediately face, rather than an aspirational context that a government might be aiming for in the future.

UNICEF's Quality Learning Environment category of 'service delivery' is closely related to physical infrastructure and facilities (UNICEF, 2000), as it flags up the requirements for, for example, toilets and kitchens and links these to the priority areas of water, sanitation and hygiene (WASH) and nutrition which are part of SDG 4a. In 2020, 55% of schools in low-income countries did not have access to basic water supplies (UNESCO, 2020), showing that there is still a way to go. Holistic approaches to improving learning outcomes by focusing on school-feeding programmes and nutrition have proved more effective than construction of new schools or cash transfers. Only pedagogical interventions were found to have a greater impact on boosting learning (WFP, 2020). Arguments are complicated, however, with the World Bank worryingly reporting that, "if meals are offered during normal school hours, they reduce time on task" (2018, p. 148), but 'time on task' also being a contested measure in quality debates (Alexander, 2015).

The final psychosocial category, as suggested by its absence in SDG indicators, involves more complex issues than plumbing and cooking as it tends to be closely related to social attitudes. Corporal punishment, for example, is much less likely to occur in schools in countries where parents oppose it at home (UNESCO, 2020). It is estimated that 50% of school-aged children live in countries where corporal punishment is allowed, and there are certainly others in countries where it is banned but continues in practice nonetheless e.g. South Africa (UNESCO, 2020). As well as the link with social attitudes and use of corporal punishment at home, its use in the classroom has also been linked to the challenging circumstances outlined earlier, including overcrowded classrooms, a

lack of resources and overall demotivating, stressful working conditions for teachers (Kaltenbach et al., 2018) (this will be looked at in more detail in the Tanzanian context in Chapter 5). Again, we can see the interaction between the physical and psychosocial elements of the school learning environments, but an even more uncomfortable tension is raised. These issues cast doubt on the view that education is inherently good for children, as they show schools as places of pain and suffering: "schools are often violent towards children and directly involved in the active perpetration of violence in the wider society" (Harber, 2004, p. 1). The rallying calls to enrol all children in schools without addressing these issues of schooling as violence should make us all uncomfortable.

Moving away from in-school learning, and returning to Lave's (2012) quote at the beginning of this chapter, a significant gap in the literature cited so far, is children's out-of-school learning and connections with home, family and communities. Although the home environment is mentioned in models of quality education, it is generally in terms of 'context' (UNESCO, 2004) or an 'enabling environment' (e.g. Tikly, 2011) for school learning, rather than related to non-school knowledge and skills development. Tikly's 'laminated learning system' (2015) is one valuable exception to this trend. Early childhood literature is also more likely to focus on the importance of interactions between home and school (see Rao N et al., 2014). Studies of home-school relations in the 'West', or certainly the USA, suggest they would not be held up as 'best practice':

> Nowhere is the two-way street of learning more in disrepair and in need of social reconstruction than in the relationship among parents, communities, and their schools (Fullan, 2015, p. 158).

The need for, and challenges of this 'two-way' relationship were also highlighted in a comprehensive review of primary education in England (Alexander, 2010). Although adults and children expressed concern about aspects of school life encroaching on home life, for example parents worrying about the effects of 'scholarisation' from longer school days and more homework, the review concluded that bridges between home and school need to be maintained, and "traffic along these bridges flows both ways" (Alexander, 2010, p. 13).

Again though, this literature is concerned with home support for school learning. If we want to know more about children's broader learning and development, or indeed children's own perspectives and experience of learning out-of-school, we

need to turn to other fields. When doing this, however, Vavrus urges caution. Citing Lancy (2015), she warns that the majority of authoritative knowledge on children's broader development is far from representative since it comes from minority 'WEIRD' societies: "Western, Educated, Industrialized, Rich, Democratic" (Lancy, 2015 in Vavrus, 2021, p. 127). Similarly, Punch reminds us that the majority of the world's children live in LMICs but that "third World childhoods tend to be considered deviant when examined within the globalized model of childhood which is based on western ideals" (Punch, 2003, p. 277). Much research on African childhoods, for example, focuses on children in the most difficult or disadvantaged circumstance so there is little attention paid to "everyday aspects of majority world children's childhoods" (Punch, 2003, p. 281). There are works though that education and Comparative and International Education (CIE) scholars in particular would benefit from looking at to better understand childhoods and out-of-school learning for majority world[2] children, such as anthropology (e.g. Katz, 1986, 2004), child and human development (e.g. Tudge, 2008), sociology (e.g. Punch, 2003) and children's geographies (e.g. Porter et al., 2010).

One very insightful example is Cindi Katz's work on the environmental knowledge of rural children in Sudan (Katz, 1986, 2004) which offers a stark and refreshing contrast to the 'learning crisis' literature, though she also grapples with troubling ideas related to the challenges of learning in a changing, globalising world. Her work demonstrates how economic and political change, from an agricultural economy where environmental learning and application of environmental knowledge are important, to a capitalist model, can alter the shape and value of knowledge (Katz, 1986). Her intricate ethnography, and subsequent book, detailing the perceptions and experiences of a group of 10-year-olds, provides rich insight into effective learning practices outside school:

> Through direct oral instruction, stories, songs, riddles, demonstration, apprenticeship, guided practice, and shared activities, adults ensured that their rich and evolving store of knowledge about the environment was passed on as a routine part of everyday life. Children also acquired environmental knowledge in the course of their autonomous activities with peers and older children. Their routine activities and

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[2] I find this construct of 'minority / majority world' a helpful and powerful one in this study. See Benwell (2009), Jakobsen (2012) and Punch (2003) for insightful accounts.

everyday interactions—both work and play—offered opportunities to acquire, try out, use, master, reimagine, and alter environmental knowledge (Katz, 2004, p. 60).

The descriptions above constitute adult and peer pedagogies which resulted in "elaborate, comprehensive, and workable bodies of knowledge shared more or less by all children ten years and older" (Katz, 2004, p. 119), and none of it to be measured in tests, but simply to be used usefully in social practice.

During the time of Katz's study, accompanying the political and economic change, there was an increase in demand and appreciation for formal schooling. Katz recognises both the benefits to be gained by formal schooling and the corresponding loss in environmental knowledge:

> The need to acquire these skills and the kinds of knowledge associated with formal schooling were visceral to people in Howa … and it is the pace and extent of that shift—of power/knowledge—that are remarkable. But the potential loss—of ways of knowing, of kinds of knowers, of particular bodies of knowledge—is also enormous and irretrievable (Katz, 2004, p. 117).

This is a reminder that where and how learning happens affects the kind of knowledge and skills gained. Here, changes *within* a rural environment had significant impact. In Tudge's seven country comparison of *The Everyday Lives of Young Children* (2008), he also raised the difference between the out-of-school skills and social characteristics of children in rural compared with urban areas. He noted that very young children (two to four years old) in rural Kenya were not only likely to do more essential domestic chores, because of which *they* "developed a sense of responsibility early in life" (Tudge, 2008, p. 46), but they were also more likely to engage in friendly, social interaction than their urban counterparts. This suggests that *where* you learn has implications for *socialisation* (Biesta, 2015) and *learning to live together* (Delors et al., 1996).

Conclusion

This chapter has looked at how learning is represented and understood in global education agendas, the importance of retaining a focus on the purpose of learning, the multiple meanings of learning and implications for research and practice, and finally, the need to open up approaches to understanding learning

beyond the classroom. Across all these sections, assessment of learning has loomed large, in international measurement of global goals and in national examinations, suggesting that learning outcomes seem to garner more attention than the actual processes that support and enable meaningful learning, and the children's actual experience of learning. In attempting to outline different understandings of learning, I argue that there continues to be a reluctance, especially at an institutional level (e.g. the World Bank and UNESCO) to fully engage with the complexity and messiness of learning, and this, paired with an almost total neglect of children's voices in learning debates, leaves us with a partial picture of learning in and out of school spaces.

I make one final point here about the term 'learning spaces' which is a fundamental concept in this study, expressed in my main research question: *How do primary pupils and teachers perceive and experience urban school, home and neighbourhood **learning spaces?*** There are several reasons for this construction. Firstly, it serves to strengthen the assertion that learning happens outside school and positions this study distinctly away from those that only focus on classroom practices and metrics of classroom learning. This then opens the possibility of different kinds of learning, with different content, purposes and relationships than those involved in formal education. Secondly, by not pinning down my assumptions or definitions of learning in the question, it leaves it open to participants' perspectives. Finally, when combined with a relational spatial approach, as will be detailed in Chapter 4, it allows me to hold together the multiple scales, for example of local, national and global, whilst exploring learning experiences across different sites, highlighting the situatedness of learning and reiterating the assertion that "the global […] is not an abstract imposed from outside onto a static local reality, but an integrated part of the national and local picture" (Schweisfurth, 2013, p. 153).

Chapter 3. Pedagogy

Introduction

> What children learn is directly related to what and how teachers
> teach: what teachers and learners do in the classroom is significant
> and pedagogical choices shape learning outcomes (Livingston et al.,
> 2017, p. 11).

The above lines from a policy advice paper on *Why Pedagogy Matters* serve as
the ideal bridge between Chapter 2's focus on learning, and this chapter on
teaching, pedagogy, context and culture. The first main research question in this
study focuses on learning but without the second question, looking at the
implications for pedagogy, there would be no sense of forward movement, no
call to action on what can potentially be done to support more meaningful
learning for children in schools, linking to their lives and futures out of school. In
this sense pedagogy is the key mechanism for enacting changes in classroom
learning.

Where the previous chapter looked at learning, this chapter turns to the
processes and practices that support children's learning by presenting the
essential role of pedagogy in education. In the discussion of what constitutes
quality education in Chapter 2, I touched upon the 'complex classroom
processes' that have largely been neglected in favour of simple, linear input-
output models of quality in much of the global learning discourse. In quality
education debates, Robin Alexander has provided an important voice,
continually campaigning for more attention to be paid to what really matters in
teaching and learning throughout EFA, the MDGs and SDGs. As national and
global actors struggled to achieve learning outcomes in the second half of the
MDG period, he stated:

> Pedagogy is so palpably the missing ingredient in the international
> debate about education quality, and it is so obviously vital to student
> retention and progress and to learning outcomes, that we have no
> alternative but to find ways of remedying the deficiency (Alexander,
> 2008, p. 22).

Then again, as the MDGs drew to a close and planning commenced for the SDGs,
Alexander expressed concern about the continued lack of meaningful focus on
pedagogy in UNESCO's Global Monitoring Reports (GMR):

> The striking feature of the GMRs is that they do not so much engage
> with pedagogy as circle around it (Alexander, 2015, p. 253).

There are several parallels here with the debates and issues related to learning. Both pedagogy and learning involve complex, socially and culturally situated processes, ideas and practices which are hard to define, understand, and measure, and for these reasons they have often been misunderstood and neglected in their whole, messy complex forms. Just as Tikly's (2015) laminated learning model showed an interactive, multi-layered model of learning, spanning home, school and community spaces, so too do we need to look at pedagogy, which supports learning, in a similar multi-faceted, contextual way.

This chapter is divided into five main sections. The first lays out this study's conceptual understanding of pedagogy and its relation to learning. Section 2 looks in more detail at the situatedness of pedagogy and the importance of recognising and understanding how embedded pedagogy is in its social and cultural context. In the third section, I look at the interconnections between different parts of the education system and the importance of alignment between the components. The fourth section echoes the same call for more inclusion of children's voices as we saw in Chapter 2 but also discusses how children are, and perhaps should be, represented in pedagogy research. The final section pulls together ideas from across the chapter using the concept of *the Pedagogical Nexus* to highlight the interweaving of educational, social and cultural phenomena that help us understand pedagogy and its relationship with learning.

This chapter also serves as the conceptual and discursive 'framing' of the discussion of pedagogy in Tanzania in Chapter 5, not because the national context sits somehow 'under' or 'inside' the global, but because the two inform and interact with each other (Schweisfurth, 2013, Massey, 2005).

Learning, teaching and pedagogy

In Chapter 2, when looking at quality education, Tikly's notion of a "tasty soup" (2011, p. 11), a combination of inputs and processes to produce learning outcomes, provided a helpful image of the complexities of interactions across

enabling environments in a context-led model. Likewise, Black and Wiliam's (2010) 'black box' image is often used to highlight the multiple, complex processes that happen in the classroom, which turn inputs into outputs, but are themselves little understood, or often oversimplified in linear models. This 'black box' contains the details of teaching and learning processes, processes which have been examined, understood and described in various ways to inform practice and policy. Alexander, for example, describes teaching as "the act of using method x to enable pupils to learn y" (2001, p. 516). Based on his model of teacher knowledge, Shulman (1987) describes the teaching and learning process putting the teacher in the central role:

> A teacher knows something not understood by others, presumably the students. The teacher can transform understanding, performance skills, or desired attitudes or values into pedagogical representations and actions. These are the ways of talking, showing, enacting or otherwise representing ideas so that the unknowing can come to know, those without understanding can comprehend and discern and the unskilled can become adept (Shulman, 1987, p. 7).

Both of these immediately give the reader a clear idea of the teacher's role of bridging the gap between not knowing and knowing through the use of various teaching methods. However, although the act of teaching is obviously incredibly important, it is not 'teaching' that Alexander cites as the missing ingredient in quality education debates; it is pedagogy, and where teaching is an act, or a set of practices, pedagogy is both the act and the broader accompanying discourse and ideas:

> Pedagogy is the observable act of teaching together with its attendant discourse of educational theories, values, evidence and justifications. It is what one needs to know, and the skills one needs to command, in order to make and justify the many different kinds of decisions of which teaching is constituted (Alexander, 2008, p. 29).

Alexander recognises that the everyday classroom decisions made by teachers are not made in isolation, based only on the immediate curricular content to be delivered and specific children sat in front of them; they are shaped by a myriad of other social, cultural, historical, political and ideological factors. Like learning, teaching and pedagogy cannot be looked at in isolation from their context (see, for example: Schweisfurth, 2013, Tabulawa, 2013, Barrett, 2007, Alexander, 2000). Also, like learning, pedagogy needs to be understood before it can be measured (Alexander, 2008).

Alexander's frameworks of *pedagogy as ideas* and *pedagogy as practice* (Alexander, 2000, 2008) were designed to meet these requirements, and were developed as part of a five country comparative study of pedagogy which required ways of investigating practices across diverse contexts of England, France, Russia, the USA and India (Alexander, 2000). Since their development, they have been widely used and referred to by CIE researchers because of their insistence on comprehensive attention to multiple features both in and outside the classroom (e.g. Sakata, 2019, Tabulawa, 2013, Westbrook et al., 2013).

The inclusion in his framework of *pedagogy as ideas*, focusing on the attendant discourse of pedagogical practice, highlights that any measure of pedagogy or teaching quality that only captures 'the observable act' is inadequate. This framework operates across three levels or domains. The first, the classroom level, includes core ideas that *enable teaching*, such as teachers' and society's ideas about students, learning, teaching and curriculum. These ideas are shaped and modified by those at the second level: the system/policy level where ideas *formalise and legitimate teaching*. This includes discourses around the school, national curriculum, assessment and other policy-level system components such as teacher education. The third level or domain *locates teaching* at the cultural/societal level. Teaching and learning are 'anchored' in specific times and places and therefore cannot be understood without looking at ideas of community, culture, and what it means to be a person (Alexander, 2008).

The second framework, *pedagogy as practice,* is understood in relation to the first; pedagogical practices cannot be isolated from the ideas that locate, formalise and enable them. This framework is broken up into *act, form and frame*. Teaching methods or *acts* are combinations of classroom tasks, activities, interactions and teacher judgements. These take place within the *form* of the lesson. All of this is *framed* by structural, organisational components of physical space, student organisation, time, curriculum, routine, rule and ritual (Alexander, 2008). Between the two frameworks, there is no tidy linear relationship; it is not simply that ideas inform or shape practice as it can work in reverse too. Alexander concedes that a visual composite model of the two interdependent frameworks is beyond him so instead states, "the two frameworks have an intimate, necessary but highly complex relationship" (Alexander, 2008, p. 32). This study draws on Alexander's frameworks to inform

the methodology and will also build on them in the theoretical framework, analysis and discussion.

Based on Alexander's comprehensive pedagogical frameworks, empirical studies aiming to analyse, compare or assess pedagogy would need to combine methods for capturing the act of teaching as well as the values and ideas shaping it (Alexander, 2001) and likewise, policy-makers or others wishing to plan pedagogical interventions need to draw on evidence that spans practice and ideas. With this being the case, it is useful to look at some of the ways that pedagogy has been conceptualised and talked about in global discourses, research and education policies and to identify some of the issues caused by problematic or weak understandings of pedagogy.

Firstly, in efforts to define and describe different pedagogical approaches, short-hand labels are often used to refer to sets of practices, underpinned by particular principles or beliefs about teaching and learning. Some of the most commonly cited examples include 'learner-centred' (or variations with 'child-centred' and 'student-centred), 'teacher-centred' or 'teacher-dominated' and 'activity-based'. For example, UNESCO's 2014 GMR on teaching and learning talks about LMICs trying to "move from these teacher-dominated approaches towards a learner-centred one" (UNESCO, 2014, p. 245) as part of the quality education agenda. The problem with these labels is not that they exist, but that they are often used as a short-hand without accompanying definitions, descriptions or contextual detail and therefore might be understood differently (Westbrook et al., 2013).

When details are given, certain practices become associated with particular labelled approaches. For example closed questioning, the limited use of teacher-whole class interaction pattern of *initiation -response-feedback* (IRF), recitation, rote learning or choral response are strongly associated with 'ineffective' teacher-centred pedagogical approaches, whereas questions targeting higher-order thinking skills and pair and group work are seen as 'learner-centred' (Westbrook et al., 2013). These labels are also used with implied judgements of teaching quality with, for example, 'learner-centred' seen as intrinsically good but hard to implement. As a result, the portrayal of

learner-centred education (LCE[3]) in 'developing' country contexts is often one of "failure and waste" (Schweisfurth, 2013, p. 154). In contrast, 'teacher-centred' tends to be viewed as bad or ineffective, but without sufficient 'unpacking' to really understand what is going on (Westbrook et al., 2013). These labels are also often attributed to the Global North and South respectively, with 'the North' seen as the source of 'best practice' and inconvenient exceptions ignored, for example see Alexander (2001) on Russia, or Silova (2018) on China and Japan for high performing countries known for more teacher-directed approaches.

Schweisfurth's 'minimum standards' for LCE tackle the issue of the superficial label by detailing the core, essential elements as well as allowing for contextual 'elasticity' (Schweisfurth, 2013). With her model, she is working towards both, "de-polarising pedagogy and contextualising it" as often these labels are set as a dichotomy, most commonly with 'learner-centred' *versus* 'teacher-centred'. This use of labelling pedagogies in dichotomous terms has been widely rejected (see, for example: Schweisfurth, 2011, Vavrus, 2009, Barrett, 2007, Tabulawa, 2003, Croft, 2002, Alexander, 2001) with calls to look beyond these "crude binary codes" (Schweisfurth, 2011, p. 430). Alexander points out that this adversarial setting up of approaches and practices against each other can result in us "treat[ing] as incompatible what are in fact complementary" (Alexander, 2020, p. 134), giving as an example that both recitation and dialogue can have a place in the classroom in a truly dialogic approach. In this study, I took a deliberate stance not to use any pedagogical labels, either to frame the research questions, or when gathering data. Similar to the approach taken in the DfID literature review (Westbrook et al., 2013), I aim for rich descriptions of pedagogy as ideas and practice, and especially those of the participants themselves, rather than short-hand labels, and not necessarily confined to the classroom. No formal label has been attached to the pedagogy that offers children opportunities to, "acquire, try out, use, master, reimagine, and alter … knowledge" as Katz described in her account of children developing environmental knowledge with their peers and elders in Sudan (Chapter 2), but it is nonetheless a valuable set of pedagogical practices (Katz, 2004, p. 60).

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[3] also referred to as learner-centred pedagogy (LCP) e.g. in Sakata (2019)

With the rich descriptions of pedagogy that many of the scholars cited above aim for, there is often little room left to include a detailed focus on pupil learning. The 2013 DfID Literature Review asked: *Which pedagogic practices, in which contexts and under what conditions, most effectively support all students to learn at primary and secondary levels in developing countries?* (Westbrook et al., 2013, p. 1). The review found that the strongest evidence was related to teachers' ability to implement pedagogical practices and the ways in which teacher education and curriculum can support this. However, very few studies measured the impact of specific pedagogical practices or strategies on pupil learning outcomes. Similarly, those with rigorous measures of learning outcomes, lacked detail of pedagogic practices (Westbrook et al., 2013).

To make the relationship between learning and pedagogy explicit, Westbrook et al. (2013) define 'effective' pedagogy as:

> Those teaching and learning activities which make some observable change in students, leading to greater engagement and understanding and/or a measurable impact on student learning (Westbrook et al., 2013, p. 8).

This definition is useful as a reminder that pedagogy alone is of little interest unless it is seen in relation to learning. This study, though not measuring learning outcomes, aims to hold both of these complex phenomena up for examination and to understand more of the relationship between them.

Pedagogy, context and culture

> Life in schools and colleges is an aspect of our wider society, not separated from it: a culture does not stop at the school gate. The character and dynamics of school life are shaped by the values that shape other aspects of our national life (Alexander, 2000, p. 29-30).

This quote from Alexander will be returned to several times throughout this thesis as it provides a clear articulation of the importance of context when looking at pedagogy and other aspects of 'life in schools'. The image of the school gate as a porous boundary also sets up a strong link to the spatial approach which will be explored in Chapter 4.

The CIE field has, at its core, the belief that context matters (Crossley, 2019, Schweisfurth and Elliott, 2019, Tikly, 2016, Tabulawa, 2013, Vavrus and Bartlett, 2012, Barrett, 2005a, Alexander, 2001). Crossley emphasises that "concern with context penetrates to the heart of comparative education" (2009, p. 1173). As we saw in Alexander's *pedagogy as ideas*, teachers and their practices, and learners and their experience and engagement in the classroom are shaped by factors across classroom, system and socio-cultural levels. Like Tikly in his laminated learning model, Alexander also refers to concentric circles to highlight the multiple levels of influence and interaction, saying:

> [Pedagogy] can be comprehended only once one locates practice within the concentric circles of local and national, and of classroom, school, system and state, and only if one steers constantly back and forth between these, exploring the way that what teachers and students do in classrooms both reflects and enacts the values of the wider society (Alexander, 2001, p. 511).

This has implications for how pedagogy is researched, for example how data are gathered across levels and how relationships between ideas and practices within and across different levels are understood. This will be looked at in more detail in the theoretical framework in Chapter 4 and in Chapter 6, Methodology. However, the concentric circle image highlights the embeddedness of pedagogy and classroom practices in layers of cultural phenomena. From here, it is easy to see the problem of the "uncritical international transfer" (Crossley, 2019, p. 1175) of education policy and practice. Since the component being nominally transferred is thoroughly enmeshed and integrated into its social, cultural and political context, it cannot be simply inserted into a new context. A medical metaphor likens this to organ transplantation into a foreign body without the immunological conditions to support it, resulting in 'tissue rejection'[4] (Tabulawa, 1997, 2013) of the transplanted pedagogy. He is referring specifically to the widely-acknowledged problematic transfer of LCE (Schweisfurth, 2011, 2013, 2015, Tabulawa, 2003, 2013) from the Global North to Africa, without due care and attention to cultural context. A number of reasons have been given for this, mainly focused on two areas: lack of resources and lack of cultural 'fit' (Tabulawa, 2013, Altinyelken, 2010b). Echoing Alexander, Tabulawa points out that "teaching and learning do not occur in a sociological vacuum" (2013, p.

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[4] This medical metaphor was originally used to talk about transfer of education policies, e.g. curriculum, and educational change in general, (see Hoyle (1970) and Harley et al. (2000))

xix). He compares attempts of pedagogical reform without due consideration of culture to trying to change national child-rearing practices, and the resistance that would follow. 'Learner-centred' approaches are often associated with emancipatory or child rights-based agendas (Schweisfurth, 2013) which can clash with cultures which have more authoritarian, hierarchical adult-child and teacher-pupil relations (Tabulawa, 2013, Altinyelken, 2010b). In Tabulawa's case, he is referring to cultural and educational norms that he sees in contemporary Botswana but he makes a point of highlighting that, these traits are not a fixed inherent part of the social world; they were produced over time through a combination of indigenous beliefs about hierarchical adult-child knowledge transfer and "hierarchical, bureaucratic and condescending" British missionary education (Tabulawa, 2013, p. xxi). The intricate meshing of these two have produced what is now regarded as 'teacher-centred' pedagogy. This focus on cultural change over time, or "temporal continuities" (and discontinuities) (Alexander, 2001, p. 519) and the multiple factors producing phenomena will be returned to again and again in this thesis. Sobe's guidance for teaching CIE is pertinent here as he emphasises, not only the multiplicity in focus required for study, but also the constant change and lack of fixity:

> When studying schools in national and/or global terms, students in comparative and international education need to grapple with the contingent bundling together of heterogeneous elements and not struggle to match these contingent assemblages to any prefigured 'cultural models' or reified ideological platforms (Sobe, 2016, p. 157).

Again, this is an area where the work of Tabulawa, Alexander and others who are happy to wrangle with the messiness and complexity of pedagogy and culture particularly appeals to me.

Alexander's five country study also informed his development of three fundamental primordial values which categorise the relationships between individuals and society: individualism, community and collectivism (Alexander, 2001). Individualism is characterised by, among others, personal choice and knowledge, freedom of expression, rights over responsibilities, and individual, differentiated learning for individual divergent learning outcomes (Alexander, 2001). Community values are demonstrated by mutual respect, sharing, the balance of rights and responsibilities and collaborative group learning. The

characteristics of collectivist values are social cohesion, shared ownership, values and responsibilities and joint learning with convergent outcomes for the whole class (Alexander, 2001).

These characteristics, and similar societal descriptions, are often used when describing pedagogical practices and especially when explaining the incompatibility of pedagogical approaches across cultures, most often when looking at individualistic versus collectivist values. In response to the attempted transfer of more individualistic learner-centred or similar approaches into African contexts, a number of scholars have played with new labels and definitions to more accurately report on how pedagogy plays out in these low-resource and more collective contexts, for example: 'contingent constructivism' as a more culturally compatible shift from 'teacher-centred' practices in Tanzania (Vavrus, 2009); a shift from 'child-centred' discourses to 'children-centred' pedagogies informed by collective, Ubuntu-based culture in Malawi (Croft, 2002); and 'learner-centred' to 'learning-centred' (O'Sullivan, 2004) in Namibia where, again, the researcher wanted to signal a move away from individualistic approaches. Highlighting the porous boundaries of these categories, Schweisfurth (2013) reflects that her minimum standards of LCE mentioned earlier, closely resemble O'Sullivan's learnING-centred education. These are all useful ways of examining pedagogy in a more culturally responsive way, as long as these new labels do not come to be used in the same sloppy short-hand as their predecessors, and as long as we do not see these as fixed, static definitions of unchanging cultures. Alexander helpfully reminds us that the values of individualism, community and collectivism do not exist as distinct entities:

> The scenario is not one of singularity: human consciousness and human relations involve the interplay of all three values and though one may be dominant, they may all in reality be present and exist in uneasy tension (Alexander, 2001, p. 521).

A keen awareness of this interplay is essential when researching across cultures. Hart (2008), for example, when reflecting on cultural bias in his own 'ladder of participation', grappled with his definition of a truly participatory project being intrinsically voluntary when observing all village children taking part in adult organised activities in Sri Lanka, but all taking great pride and none feeling compelled. He concluded:

> This was a more collective kind of culture where children are raised from an early age to see themselves deeply as members of a community with a responsibility to the development and care of others (Hart, 2008, p. 27).

His own model of participation based on individual agency had not recognised the cultural and socio-political contexts of these children's lives (Hart, 2008).

Finally, Alexander's idea of 'tensions' is another very useful one in a study that prioritises relationships between pedagogy and culture such as this. These tensions can be at a broad cultural level as above, or across different parts of an education system. Teachers, for example, are constantly negotiating competing demands, working as they are at the centre of systems which often seem to pull them in multiple directions at once (Bartlett and Vavrus, 2013b, Schweisfurth, 2000).

Alignment across the system

It is not just cultural alignment or fit that matters in implementing effective pedagogy. It is also essential that the different components of the education system are aligned and complementary: pulling in the same direction (The World Bank, 2018, Schweisfurth, 2013, Westbrook et al., 2013, Vavrus et al., 2011). In their review of effective pedagogic practices, Westbrook et al.'s Theory of Change model (2013, p. 43) depicts the essential alignment between curriculum, assessment and teacher education in order to support the desired pedagogic practices. Likewise, in their 2018 World Development Report (WDR), the World Bank placed 'aligning system actors' as one of their three headline actions of what needs to be done to realise education's promise (The World Bank, 2018). They provide an example to illustrate the potential for misalignment:

> If a country adopts a new curriculum that increases emphasis on active learning and creative thinking, that alone will not change much. Teachers need to be trained so that they can use more active learning methods, and they need to care enough to make the change because teaching the new curriculum may be much more demanding than the old rote learning methods. Even if teachers are on board with curriculum reform, students could weaken its effects if an unreformed examination system creates misaligned incentives (The World Bank, 2018, p. 12-13).

Although, as in much of the WDR text, I find the language jarring (e.g. 'training' teachers shows little grasp of the full meaning of pedagogy, and teachers 'not caring enough' casts an entire profession in a negative light), their over-simplified example does highlight the component parts that can potentially pull in different directions and, as a result, hinder learning.

Again, as we saw in Chapter 2, assessment and high-stakes examinations, which ideally support as well as measure learning, can have a negative impact on pedagogy (Somerset, 2011). In Schweisfurth's minimum standards for LCE, she includes assessment that is aligned to a learner-centred curriculum and pedagogy in that it assesses skills and attitudes as well as content. She refers to the introduction of LCE in contexts that continue using high-stakes content-driven exams as a "a spectacular 'own goal'" (Schweisfurth, 2013, p.149). Similarly, since pedagogy involves teachers in processes of curriculum transformation, "a shift or transformation in curriculum purpose can also have profound implications for pedagogical practice" (Barrett et al., 2007, p. 6). This has been seen in particular with shifts from content-based curriculum to thematic or competency-based curricula. This does not just involve teachers' familiarisation with new content, or even just implementation of new sets of practices (with or without teaching and learning materials to support), but rather it requires epistemological shifts in how knowledge is constructed and challenging beliefs about teacher-pupil roles and relations (see, for example: Tabulawa, 2013, Altinyelken, 2010a). As a result, curriculum reform must be accompanied by comprehensive and culturally relevant initial and continuing teacher education, as well as in-school and other local support and leadership.

Where are the children in pedagogy?

The discussion around alignment of actors in the education system had one serious omission, that is if you consider pupils as actors. Their neglect in these debates is often because they are regarded as "pawns that merely respond … to the teacher's actions" (Tabulawa, 2013, p. 71). Children's voices are missing in pedagogy research (Westbrook et al., 2013, Schweisfurth, 2011, Alexander, 2008) as well as in learning research as we saw in Chapter 2, but more importantly, even when they are recognised, they are often portrayed as passive and without agency (Akyeampong et al., 2020, Tabulawa, 2013). Richard

Tabulawa's work (2004, 2013) is both refreshing and insightful in challenging this dominant stance, and Kwame Akyeampong's recent podcasts (2020) and collaboration on an Ethiopia speed schools project also offer an alternative portrayal of African children (Akyeampong et al., 2020). Both have influenced the approach taken in this study.

Tabulawa's work is distinctive in that he brings children to the fore as co-constructors of pedagogy. This concept of co-construction, "portrays the classroom as a living social system, and like all social systems it is a creation of human beings acting on one another" (Tabulawa, 2013, p. 72). He recognises that power hierarchies still exist but stresses that power is not a commodity to be exchanged, rather it is a productive force and teachers and pupils have the capacity to act and exercise it on each other, making the classroom, "simultaneously a constraining and enabling field" (Tabulawa, 2013, p. 77). In this sense, 'teacher-centredness' is not a pedagogical approach that is inflicted on powerless students. It is a joint project where students and teachers work together, though not without "struggles and contradictions" (Tabulawa, 2013, p. 74), towards a common goal, in this case, that of information-giving and knowledge gain to support good performance in high-stakes examinations. Just as teachers have their own classroom management and pedagogical strategies, so too do students "police [the] boundaries" of pedagogy (Tabulawa, 2013, p. 73) to ensure that their interests are met. For example, students use sustained collective silence in response to a teacher's open question to force him/her back into an information-giving role. The implications of this are that, to avoid resistance, any pedagogical reforms would need to involve pupils as well as teachers.

Where Tabulawa focuses on evidence of student agency in a teacher-centred classroom, Akyeampong is keen to challenge the deficit view of African children to look at the potential for social, creative and emotional learning with more communicative culturally responsive pedagogies. His starting point is to question the portrayal of the passive African child:

> African children are very critical, very creative, when you look at what they do in the community … they are very imaginative (Akyeampong, 2020).

He sets this in contrast to the African classroom environment which he and colleagues describe as having "a coercive culture of learning that suppresses voice, self-expression and many … important traditional values" (Akyeampong et al., 2020, p. 35), robbing children of the chance to demonstrate and develop their creativity and criticality.

Akyeampong and colleagues (2020) report on a successful 'speed schools' intervention in Ethiopia for children who had dropped out of school. They describe it as taking a 'non-binary' pedagogical approach in that it draws on aspects of more teacher-directed pedagogies, for example the teacher presenting lesson content from the textbook to the whole class, and more active or 'learner-centred' activities, such as pupils working collaboratively in groups to 'relearn' and 're-present' the lesson content to their peers using stories, music and crafts (Akyeampong et al., 2020). Overall, the pedagogy emphasises: "individual and group thinking, and the sharing and verbalization of knowledge" (Akyeampong et al., 2020, p. 45). The writers acknowledge that the class size was significantly smaller than average but they emphasise that even when the speed school children re-integrated into mainstream schools, they continued to do well, often out-performing their peers. Key findings showed that pupils felt a shared responsibility for learning with their classmates and were serious about self-management of learning which prepared them well for continuing formal schooling (Akyeampong et al., 2020). This is a good example of individual and collective traits coexisting (Alexander, 2001).

The Pedagogical nexus

I find the concept of the *'pedagogical nexus'* (Schweisfurth and Elliott, 2019, Hufton and Elliott, 2000) a very useful way of looking at the complexities of alignment and the "deep systemic connection" (Schweisfurth and Elliott, 2019, p. 1) between different system actors (including children) and social and cultural phenomena in and around an education system. Like Alexander, Hufton and Elliot wanted to look beyond the act of teaching to a broader notion of pedagogy, in their case, to understand the high levels of pupils' motivation to learn, including taking personal responsibility for out-of-school study, that they had observed in Russian pupils (Hufton and Elliott, 2000). The resulting concept of a 'pedagogical nexus' is defined as "a set of linked, interactive and mutually

reinforcing influences on pupils' motivation to learn within and because of the schooling process" (Hufton and Elliott, 2000, p. 117). Hufton and Elliot found that not only were key components such as textbooks, curriculum, pedagogy and assessment well aligned but that there was a strong wider alignment between home and school in "a well-established partnership" (Hufton and Elliott, 2000, p. 119) and importantly, an "intergenerational continuity" (Hufton and Elliott, 2000, p. 118). This means that parents and teachers have had a very similar educational experience themselves, as did their parents, and so all are familiar with the roles and expectations for them, and the children. All of this points to a stability and consistency across the system. Rather than see these as a series of causes and effects, as a simple linear model might, the *pedagogical nexus* shows how a combination of multiple related phenomena, across home, school and national contexts, are interacting and pulling in the same direction to produce the conditions for high pupil motivation.

There are parallels here with Tabulawa's view that a system must have certain stable elements to allow practices, such as teacher-centred pedagogies, to continue, even in the face of attempted reforms (Tabulawa, 2013). Three of the elements that he cites are: an objectivist view of knowledge, hierarchical adult-child relations and the utilitarian view of education as a result of human resource planning since independence. The first two, are associated with a knowledge transmission approach to pedagogy as we have briefly discussed before. The third one is linked strongly to pressure on examination performance as schooling is viewed as a means of social mobility but competition is strong as spaces are limited at each higher level of education. The backwash effect is that teaching and learning prioritise transmission of factual information that will prepare students for exams. Importantly, Tabulawa found that this was supported more widely:

> Interviews with students, teachers and parents revealed that these groups held a strong, utilitarian view of education/schooling and the view promoted and sustained a transmission-reception pedagogical style (Tabulawa, 2013, p. 111).

Just as in the *pedagogical nexus*, home, school and wider social factors combine to shape what is happening in the classroom, although with a less positive outcome in this case. This concept of the *pedagogical nexus* has been drawn on

to look at the international transfer of 'best practices' (Schweisfurth and Elliott, 2019) as well as to inform the joined up approach in Schweisfurth's *Contextualised Learner-Centred Pedagogical Nexus* (2013, p. 142) and I will draw and build on it further in this study as a way of holding multiple interacting phenomena in view to examine across home and school.

Conclusion

This chapter has presented and justified the use of Alexander's model of pedagogy as both ideas and practice in this study, and emphasised that using this model commits the researcher to investigating multiple interacting phenomena in and out of school. It has also highlighted the need for rich descriptions of processes and practices to understand pedagogies and their relation to learning, avoiding short-hand labels and unhelpful dichotomies and instead looking at potentially complementary combinations of contextually appropriate practices. Ideas of alignment and misalignments, or tensions, have recurred throughout the chapter, looking across different system components, such as teacher education, curriculum, pedagogy and examinations, and different human actors, for example in the co-construction and policing of pedagogies by teachers and pupils. Once again, I have highlighted the need for more inclusion of children's perspectives in this area. This chapter serves as a companion to Chapter 2 on learning, and, combined with it, is building up the foundations of the theoretical framework that will be detailed in Chapter 4.

Chapter 4. A spatial approach to understanding learning and pedagogy

Introduction

This chapter presents the spatial approach adopted in this study to make sense of the 'explosions' of ideas and meanings associated with the central terms 'learning', 'pedagogy' and 'context', whilst not imposing unnecessarily rigid structures to try and tame the messiness. It explains how the use of a spatial lens on learning and pedagogy enables us to gain novel insight into perceptions and experiences of learning and pedagogy across home and school. This approach was new to me at the beginning of my doctoral studies so to some extent this chapter also traces the journey of my understanding of space. Rather than presenting a final bold interdisciplinary theoretical framework, I present an exploratory framework, very much an educationalist's view of and tentative journey into space. I identify the synergies and overlaps between CIE theories and approaches and spatial theories in human geography and highlight the benefits of applying a spatial lens.

I start by laying the conceptual foundations for the chapter by explaining how a critical understanding of space can help us to 'hold' complex phenomena around learning and pedagogy together in order to investigate them. The second section introduces the work of the human geographer Doreen Massey and her conceptualisation of space which has strongly influenced this study, highlighting the potential benefits of applying a spatial lens. In Section 3, I outline some examples of ways that Massey's spatial approaches have been used in other qualitative studies and what we can learn from them. In the final section, I present the theoretical and analytical approach that I have developed using Massey's concept of relational space, explaining what it helps me to see and to do.

An introduction to social space

To begin thinking spatially can be a challenge. We have generally, historically, been subjected to a very particular, narrow view of space as a physical, geometrical, mathematical entity (Massey, 2005, Lefebvre, 1991, Soja, 1980).

Lefebvre, the pioneer of the concept of social space, opens his book, *The Production of Space*[5] by conceding that, because of this historical conditioning, in the past, "to speak of 'social space'… would have sounded strange" (Lefebvre, 1991, p. 1). Building on Lefebvre's work, in his 'socio-spatial dialectic', Soja laments that this contextual, physical view has been so dominant that it has distorted our vocabulary, and hence the way we think about space:

> While such adjectives as "social," "political," "economic", and even "historical" generally suggest … a link to human action and motivation, the term spatial typically evokes the image of something physical and external to the social context and to social action, a part of the "environment", a context *for* society - its container - rather than a structure created *by* society (original emphasis) (Soja, 1980, p. 210).

However, a considerable body of work (including Harvey, 2014, Massey, 2005, Lefebvre, 1991, Soja, 1980), often referred to in terms of 'the spatial turn', has countered this perception and 'social space', 'relational space' or space as 'socially produced' now sounds less 'strange'. In short, "space is a construct not a given, is relative not absolute" (Gulson and Symes, 2007a, p. 102).

Alexander's comment from earlier provides a helpful mental image to start this section on applying a spatial lens to our understandings of learning and pedagogy:

> Life in schools and colleges is an aspect of our wider society, not separated from it: a culture does not stop at the school gate. (Alexander, 2000).

The image of the school gate lets us imagine a fixed, bounded space, where certain elements can be kept in or kept out. However, as Alexander makes clear, what happens in school does not happen in isolation: phenomena and actors inside and outside the school shape what happens. What happens in the school, community or in the home happens because of the way that places are socially constructed and the ways that teachers and children contribute to and respond to those places. When comparative educationalists emphasise the importance of context, they are "acknowledg[ing] the temporal and spatial framing of teaching"(Tabulawa, 2013, p. 3).

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[5] First published in 1974.

This chapter introduces the temporal and spatial framing of teaching and learning in this study through a lens based on Doreen Massey's conceptualisation of space. In *For Space* (2005), Massey shares a childhood story of how she first became interested in space and the initial naïve seeds of ideas of space as relational and socially produced. She describes the childish delight she used to get from looking at a globe:

> When I was a child I used to play a game, spinning a globe or flicking through an atlas and jabbing down my finger without looking where. If it landed on land I'd try to imagine what was going on 'there' 'then'. How people lived, the landscape, what time of day it was, what season. My knowledge was extremely rudimentary but I was completely fascinated by the fact that all these things were going on now, while I was here in Manchester in bed (Massey, 2005, p. 13).

She continues to be amazed by the "contemporaneous heterogeneity of the planet" (Massey, 2005p, p.14) but admits that a lot of the naivety has gone as she recognises "the grotesqueness of the maps of power through which aspects of this 'variety' can be constituted" (Massey, 2005, p. 14). In CIE and studies of schools and pedagogies in different countries, scholars are also aiming to understand what is going on 'there', 'then' and how and why it differs from other 'theres' and 'thens' or 'here' and 'now'.

Although there have been many examples in Chapters 2 and 3 which have explored the ways that multiple phenomena play out in school and at home in terms of learning and pedagogy, there is a definite appeal to me of a spatial approach. Alexander himself accepts that CIE may be lagging behind other fields of social science which have long recognised the centrality of "the relationship between social structure, culture and human agency" (Alexander, 2009, p. 925) and so it makes sense to look to other disciplines to build our understanding further.

Massey's three propositions on space

In *For Space* (2005), Massey puts forward three propositions that frame her idea of space and which help me re-frame and tackle the research questions for this study. First, she proposes that space is the "product of interrelations" (Massey,

2005, p.9), and as such is composed by multiple interactions across multiple scales, from small, local and individual to immense and global. Her second proposition is that space should be seen as the sphere which allows for the coexistence of distinct trajectories or "contemporaneous plurality" (Massey, 2005, p.9). She illustrates this by highlighting the suspicion we should feel when presented with a neat single story such as "the inevitability of globalisation" (2005, p. 4), as told by the UK and USA, as if neoliberal capitalist globalisation is an inescapable trajectory that all nations should and will follow, rather than it being a deliberate project designed to meet the narrators' own requirements. Instead, Massey posits that space is produced by coeval trajectories, for example, different countries with their own histories and possible futures, not that some are 'behind' others on one single trajectory. Space is therefore synonymous with multiplicity; one cannot exist without the other and, as such, "this multiplicity means that space is the condition for the unexpected" (Anderson, 2008, p. 231). Finally, she proposes that space is not a fixed, finished entity; as a product of interrelations, and constituting multiple contemporaneous trajectories, space is always being constructed and can be seen as a "simultaneity of stories-so-far" (Massey, 2005, p.9). It should become apparent here also that concepts of time are embedded in the second and third propositions and that the temporal and the spatial cannot be examined separately in this model. Importantly, Massey believes that understanding these social spatial relations is key to understanding power and politics. Opening up the political to the spatial demands a politics of specificity and of connectivity, and this is at odds with grand narratives of globalisation (Massey, 2005).

Frances Vavrus, an education scholar of great influence in this study, calls for further examination of the "interplay of space-time, scale, and the social relations that produce social spaces" (2015, p. 136) and expresses surprise that, since these are central concepts in CIE, there has not been more engagement with Massey and others' critical theories of space. In this study, I take up that call and I will elaborate on the meaning of each of Massey's three propositions and illustrate their relevance to my work and the study of pedagogy in general. First, however, it is useful to briefly explore one of the traditional ways of understanding space, or absolute space, in order to clearly illustrate what I am

attempting to move away from when I say I will apply a spatial lens to this study of teaching and learning environments and pedagogy.

A rejection of flat, static Euclidian space

Massey, like Soja and Lefebvre, acknowledges that space has often been understood as purely physical and absolute but sees little use of propagating this understanding. Supporting this view, Farrugia (2018) provides a very useful application of Massey's relational understanding of space, in his work in *Spaces of youth: work, citizenship and culture in a global context* . He positions his work ontologically with Massey, in contrast with the Euclidian idea of space that relies on flat, abstract systems of coordinates. He explains that in a Euclidian view, space is inert and not dynamic; it can be unproblematically mapped on a grid. In this view, change can happen within a space but the space itself is unchanging: "society floats within space" (Farrugia, 2018, p.9). He gives the example of the boundaries of a nation state when seen simply as a series of mapped coordinates:

> A nation state boundary is simply taken for granted as the space within which societies and social relations exist, and then people may be positioned within the abstract social locations defined through the theoretical framework thus imposed (Farrugia, 2018, p.9).

One need only be reminded of the Berlin Conference where the rules and processes for European nations to occupy and claim African territories were formalised in 1884-1885 to see the arbitrary nature of nation states boundaries and the caution which must be used when examining a society which exists within those boundaries. This challenging of the nation state and taken-for-granted national boundaries chimes with the dangers of "methodological nationalism" (Dale and Robertson, 2009, p. 1114) flagged up in CIE. Historically, CIE has focused on the "territorial and geopolitical definitions of space" (Larsen and Beech, 2014, p. 191) which has meant that the nation state becomes the unit of analysis and is therefore regarded as a 'container' for society (Sobe, 2016, Larsen and Beech, 2014, Dale and Robertson, 2009, Alexander, 2001) but there is now a critical turn against this. A spatial approach and a critical educationalist approach that questions these porous boundaries are well aligned, as demonstrated by Noah Sobe in this warning to teachers of CIE:

> The critical error [is] to treat the nation-state as an explanatory
> independent variable from which most of the salient aspects of
> schools and school systems flow. Instead, the nation needs to be taken
> as something that needs to be explained, more than it explains (Sobe,
> 2016, p. 154).

As a way of explaining 'the nation', Farrugia, referring to Massey recognising the heterogeneous 'power-geometries' that produce spaces, states that, "spaces are as diverse as the vast array of social relations that make them up"(Farrugia, 2018, p.12).

As you can see, there are clear overlaps with CIE approaches which foreground context. Schweisfurth and Elliot (2019) looked back at the ways that comparativists have regarded context, for example, as being a collection of forces, or being 'ecological' in its interconnectedness. Hufton and Elliot's (2000) concept of *'pedagogical nexus'* seems particularly relevant here and has clear parallels with Farrugia's constituents of the "morphology of social life" (2018, p.15). As we saw in Chapter 3, the descriptions of the interacting phenomena in the *pedagogical nexus* are both temporal, e.g. spanning generations, and spatial, e.g. spanning both the home and school environments, and include influences interacting across local and national scales, e.g. classroom practice and national curriculum. The "fluidity and porousness of space" (Farrugia, 2018, p.15) can be seen as clearly here with the boundary of an imagined walled school compound as with Farrugia's nation state border.

Space as relational

Having looked at what space is not – an inert container that society sits in – let us return to Massey's three propositions. In the first and second, Massey asserts that space is produced by the interrelations of multiple trajectories, stories or changing phenomena. She explains that these phenomena could be, for example "a living thing, a scientific attitude, a collectivity, a social convention, a geological formation" (Massey, 2005, p.12). Anderson (2008) simply defines trajectories as multiple, heterogeneous entities, whilst Baldwin (2012) elucidates further:

> Trajectories are ideas, practices, and material processes that can
> affect people in the conduct of their daily lives, in their quest to live
> well; they are relationships and processes that affect others and may

> be authored by individuals, groups, and by non-humans (Baldwin, 2012, p. 208-209).

These trajectories are 'bundled' together and space is produced by the interactions between them (Massey, 2005). If we imagine a classroom, some of the trajectories may include, for example: the teacher and her knowledge and skills (based partly on her own experience of being a pupil); the national curriculum – as intended and enacted; classroom resources funded by a World Bank project; the high-stakes examination; the cultural norms governing adult-child relationships; the colonial logic of a donor influenced education programme; and the currently crumbling classroom roof. None of these trajectories acts in isolation, and teachers and pupils need to negotiate these intermingled bundles of trajectories when in that classroom space. Here, the global, national and local interact to produce space; there is no separation of the great 'out there' global 'space', and the local, known, familiar 'place' (Massey, 2005). As Schweisfurth said, the global is, "an integrated part of the national and local picture"(2013, p. 153). Recognising these trajectories and the existence of multiplicity demands "a commitment to that radical contemporaneity which is the condition of, and condition for, spatiality" (Massey, 2005, p. 15).

I find this conceptualisation of bundles of trajectories particularly useful to explore the implementation gaps between policy, reform or intended curriculum and classroom practices. Again, alignment can be found with this conceptualisation of space and education scholars' approach to understanding the interactions between the global, national and local, for example Ball's (1993) educational policy analysis. When looking at policy effects, he explains:

> It is not that policies have no effects, they do; it is not that those effects are not significant, they are; it is not that those effects are not patterned, they are. But to reiterate, responses [...] vary between contexts. Policies from 'above' are not the only constraints and influences upon institutional practice (Ball, 1993, p.15).

Ball is not speaking 'spatially' here but there is certainly a compatibility in approaches. His use of inverted commas on 'above' could signify that he does not regard policy as separate and operating 'out there', and he acknowledges the multiple influences of trajectories which shape the classroom practices and spaces.

Of course, Ball is not alone. Across the social sciences, different theories, models and methodological approaches attempt to make sense of the interplay of complex social phenomena. It is natural that there will be overlaps and synergies between approaches taken in different fields. For example, Latour and his Actor Network Theory are cited by Massey (2005) in her conceptualisation of space (and time) and Bartlett and Vavrus (2017c) in their Comparative Case Study (CCS) approach (of which more in Chapter 6, Methodology). In Chapters 2 and 3 we also saw Alexander's (2000, 2008) two complementary pedagogy frameworks, and Tikly's (2011) frameworks for understanding educational quality and learning. These ideas are relevant to my discussions of learning and pedagogy and provide valuable insights to my study on the relationships between perceptions and experiences of learning in different environments.

It is also worth mentioning that, though arriving late to the wider spatial turn in the Social Sciences (Larsen and Beech, 2014), educationalists have engaged with spatial theories, especially in terms of space as relational (Larsen and Beech, 2014, Ferrare and Apple, 2010). These explorations have sometimes been accompanied by warnings not to be drawn to the novelty of spatial theory (Ferrare and Apple, 2010), and other times by enthusiasm at what a spatial approach can offer: "making space for space in education is long overdue", say Gulson and Symes (2007b, p.13). Vavrus notes that the spatial theorising that has been done in education has mainly been focused at policy level, neglecting the "social production of space at local scales" (Vavrus, 2015, p. 138). Overall, the case has been made that spatial-relational theories, when applied critically can make a valuable contribution to education research by shedding new light on existing problems in meaningful ways (Beech and Artopoulos, 2016, Larsen and Beech, 2014, Ferrare and Apple, 2010, Gulson and Symes, 2007a).

Although some scholars mentioned above cite Massey, it is largely as an example of a theorist who regards space as relational and they do not go into the details of her conceptualisation of space. Again though, when thinking about the classroom as a learning space, and pedagogy working across individual, classroom, school and society levels, I find myself returning to Massey and her concepts of multiple trajectories and *stories-so-far*.

Space as a simultaneity of stories-so-far: space-time

It is the '-so-far" in "stories-so-far" (2005, p.9) that links to Massey's third proposition. This refers to her view that space is continually "under construction" (Massey, 2005, p.9) and is not a fixed, closed, finished entity. Lefebvre put this simply, saying, "in space, what came earlier continues to underpin what follows" (Lefebvre, 1991, p. 229). For Massey, each trajectory represents a *changing* phenomenon and therefore we cannot look at any practice, policy or event without seeing the history that trails behind it. Likewise, each human negotiating interwoven trajectories has their own *story-so-far* which affects how they negotiate, and the extent to which they influence or are influenced by, the trajectories. Education scholars may see this as the important historical component of context. However, one of Massey's aims was to bring space 'alive' and see its dynamism in the same way that traditionally we have seen time as the dynamic dimension of change and progress (Massey, 2013). For Massey, so integral is the temporal to the spatial, that space is 'space-time' (Massey, 2005). Massey regards as a significant problem, that space has been reduced to time in many discourses and theories. The striking example I mentioned earlier of the powerful *'grand narrative'* of globalisation as inevitable is particularly relevant when thinking about the implications of the global education agenda. Part of this grand narrative is that spatial difference, for example Mali and Chad not experiencing the same technological advances as 'successfully globalised' countries, can be represented as temporal difference – these countries are currently behind but will be able to catch up on the linear path of globalisation. We are told the story that Mali and Chad are not different, just behind: without their own history and potential for different trajectories (Massey, 2005). "This is an aspatial view of globalisation … The essential multiplicities of the spatial are denied" (Massey, 2005, p. 82).

This narrative is echoed in the 'learning crisis' grand narrative which Silova claims is driven by 'colonial logic' which:

> Perpetuates divisions of the world into 'developed' and 'developing' countries, reinforces hierarchies of power and knowledge, and re-inscribes Western 'best practices' as solutions to the so-called 'learning crisis' (Silova, 2018).

As we saw in Chapter 2, multilateral institutions such as the World Bank frame these problems ahistorically, and therefore also a-spatially, ignoring their own "historical complicity" (Salim Vally in Ginsburg et al., 2018, p. 283) in the current 'crisis'. As Hickel says, "the development industry has trained us to think on short time-scales" (2017, p. 65).

In CIE, we see versions of these grand narratives frequently. Over the last 60 years, EFA, the MDGs and SDGs have mobilised and coordinated action towards improved access to and quality of education, and while they have undoubtedly been powerful forces in mobilising efforts and resources, they have also reliably and consistently allowed us to report on the failure of Sub-Saharan African countries to meet these goals (Johnston, 2011, Easterly, 2009, Clemens, 2004) and portrayed an often deficit picture, perpetuating colonial divisions, of countries in the Global South as "trapped in an endless loop of poverty, corruption, and backwardness" (Silova, 2018).

It is in this area that I feel Massey's spatial thinking makes a valuable contribution. She suggests that space has too often been conceptualised as "...static, closed, immobile, as the opposite of time" (Massey, 2005, p.18). She maintains that thinking in this way allows us to label the space of Western Europe as 'advanced' and that of Africa 'behind', as if there is one history and one future and all progress should be measured along a single trajectory towards a goal defined by the western model. In this way, "coexisting heterogeneity is rendered as (reduced to) place in the historical queue" (Massey, 2005, p.69). Instead, Massey urges us to recognise multiple trajectories and the coeval existence of countries (or any other spaces) allowing them their uniqueness. She rejects the reduction of space to time, and this aspatial view of globalisation:

> The argument here is instead to understand space as an open, ongoing production. As well as injecting temporality into the spatial this also reinvigorates its aspect of discrete multiplicity; for while the closed system is the foundation for the singular universe, opening that up makes room for a genuine multiplicity of trajectories, and thus potentially of voices (Massey, 2005, p.55).

This 'reinvigorating' approach seems to make space for some new directions: an opening up of different ways of doing things. Within education, this would be welcomed. Concerned about a 'pedagogy for the depressed', Schweisfurth fears that research reporting against an unfair 'global standard' has "paint[ed] a

picture of failure and waste, particularly where hope and development are needed most" (Schweisfurth, 2013, p. 154).

The work of many others we have seen in Chapters 2 and 3 also rejects this aspatial view of globalisation (e.g. O'Sullivan, 2010, Vavrus, 2009, Croft, 2002) and I would suggest their work would defend Massey's assertion that the African countries in which they have done their research deserve the right to their own unique trajectories in development. However, it is still useful to heed Massey's warning that "spatialising social theory is categorically not reducible merely to insisting on local variation" (Massey, 2005, p. 88) as this same approach is needed to ensure that minor adaptions are not made to an approach such as LCE in order to make one fixed model 'fit' in a different geographical setting. Instead, a spatial approach to globalisation requires a "politics of specificity" (Massey, 2005, p. 103) where local–global politics look different and are structured differently in different places. This is particularly important when considering the standardised SDGs and recent 'what works?' and 'smart buys' approaches, which prescribe 'global' interventions and solutions. As Massey says,

> The negotiation [of place] will always be an invention; there will be need for judgement, learning, improvisation; *there will be no simply portable rules* (my emphasis) (Massey, 2005, p. 161).

Applying Massey's conceptualisation of space

Although Massey's conceptualisation of space in *For Space* (Massey, 2005) has been instrumental in informing my approach, her earlier empirical work is also of great interest. For example, in her study of *Masculinity, dualisms and high technology* (Massey, 1995), she looked at factors influencing social relations in home and work spaces for male scientists working in the highly competitive, high-tech sector and the high-tech masculinity reinforced through these relations. The data revealed that the male scientists viewed home and work spaces dualistically, associating work with transcendence (pushing forward/ progress) and home with immanence (standing still/ reproduction) (Massey, 1995). She described the ways in which the boundary between work and home can be seen as 'dislocated' and 'porous' when looking at the activities and relationships which are allowed and not allowed to cross boundaries, for

example in terms of taking work home, spending evenings, weekends and holidays working in a home office and allowing work commitments to trump family plans.

> Both temporally and spatially, it (the home) is porous and, in particular, it is invaded by the sphere of paid work (Massey, 1995, p. 494).

Massey (1995) also makes clear that invasion in the opposite direction, i.e. the home invading the work sphere, is rare; work space is not characterised by a similar porosity for these men. In this study, Massey shows home and work spaces as products of the relations between multiple trajectories, such as the nature of competition in high-tech companies and forms of masculinity, which span scales of the national, social and individual. Her insights into the various ways that they are negotiated allow her to raise wider questions about the limited power of individuals to resist and change dualistic separation, and moreover, about the need to "undermine and disrupt the polarisations which are producing the problem in the first place" (Massey, 1995, p. 497). Her approach serves as a model for my work which strives to understand the bundling and negotiations of complex trajectories producing home and school spaces and the potential for a deeper spatially-informed understanding of problems leading, potentially, to more effective solutions.

One example of applying Massey's conceptualisation of space to an empirical study is Baldwin's *Putting Massey's relational sense of place to practice: labour and the constitution of Jolly Beach, Antigua, West Indies* (2012). In developing his methodology based on Massey's relational sense of place, Baldwin attempted to "identify and grasp all relevant trajectories, negotiations, and relations constituting a place" (Baldwin, 2012, p.210). He did this first through his literature review, and secondly through field work observation. The trajectories identified include: "slavery and the sugar complex, emancipation and social relations formed in its wake, the rise of post- colonial government and sensibilities, … negotiations by resort operators with environmental trajectories, specifically with hurricanes" (Baldwin, 2012, p. 212). The range identified here, spanning the historical, global and local, give a clear idea of the multiplicity and bundles of trajectories that produce working spaces at Jolly Beach. Baldwin's study allowed him to gain insight into the ways that Jolly Beach workers in the

tourist industry negotiated relationships between interacting economic, political, cultural, and environmental trajectories, "to produce more satisfying, or less diminishing lives for themselves" (Baldwin, 2012, p.209).

This paper was very useful to me and I could see several parallels between his aim to understand workers at Jolly Beach and mine to understand pupils' and teachers' perceptions and experiences in Bukoba. However, I was initially intimidated and then confused by his attempt to fully 'tame' space by identifying every possible trajectory. Massey herself states that she does not see the need to label all the content, reminding us that it is not possible to *'pin down'* space:

> We cannot recount them all [trajectories], or be constantly aware of each and every one of 'the others busy living simultaneously with me'. Perhaps what is needed first is a leap into space. Then there will be a prioritisation, a selection, perhaps reflecting actual practices of relationality (Massey, 2005, p.80).

As a researcher attempting a similar feat to Baldwin, a spatial exploration of my chosen phenomenon, I find this reassuring. Just as 'context' can take CIE researchers in multiple directions, so too can space. In this study, heeding Massey's advice, I focus on the *practices of relationality*, as expressed to me by participants and as observed through my time in the field and in my reading. It is the "angle of vision" (Massey, 2005, p. 80) rather than the complete enumeration of trajectories which should afford us insight. Further to this, I recognise that just as the spatial allows for multiple trajectories, it must also allow for multiple views of those trajectories; mine is only one perspective and others would view and prioritise those multiple trajectories differently. As Massey says, "any 'simultaneity' of stories-so-far will be a distinct simultaneity from a particular vantage point" (Massey, 2005, p. 89).

What a spatial approach looks like in this study

I have used the terms 'space' and 'spaces' throughout this chapter but of course homes, classrooms and schools are distinct, recognisable places: still unfinished and socially produced, but distinct from one another. We all know, and children only too well, that different social rules apply at home and at school, for example. Massey focuses on these distinctions of place more in her earlier work,

describing places as, "not so much bounded areas as open and porous networks of social relations" (Massey, 1994, p. 120) where some relations are contained within and other stretch beyond:

> The singularity of any individual place is formed in part out of the specificity of the interactions which occur at that location (nowhere else does this precise mixture occur) and in part out of the fact that the meeting of those social relations at that location (their partly happenstance juxtaposition) will in turn produce new social effects (Massey, 1994, p.168).

Massey later referred to this 'specificity of interactions' as "throwntogetherness" and this is particularly helpful in this study looking at "the entanglements and configurations of multiple trajectories, multiple histories" (Massey, 2005, p.148) producing classrooms, schools, homes, neighbourhoods, towns and even nations. She explains that,

> What is special about place is precisely the throwntogetherness, the unavoidable challenge of negotiating a here-and-now (itself drawing on a history and a geography of thens and theres); and a negotiation which must take place within and between both human and nonhuman (Massey, 2005, p.140).

Massey's *throwntogetherness,* when applied to a school or classroom, is, to me, very similar to what education scholars grapple with when looking inside the 'black box' of the classroom (Black and Wiliam, 2010). In an interview, Massey described space as being like "a pincushion of a million stories" (Massey, 2013, no page) to emphasise that, on a journey, for example, you do not merely travel across a dead, flat surface; you are, "cutting across a myriad of stories going on".

It could be said that the field of CIE already has a rigorous and rich enough approach to understanding context and that the application of a spatial lens has little new to offer. Certainly, there are excellent examples of studies of pedagogy and teachers' practices and identities which prioritise context, explore life both inside and outside the classroom and provide rich contextual detail (e.g. Tao, 2013, Barrett, 2005b, Schweisfurth, 2000). *Throwntogetherness* is perhaps also echoed in seminal conceptual works such as Shulman's concept of teacher knowledge (1986), Alexander's definition of pedagogy (2000),Tikly's framework for understanding education quality (2011) or learning (2015), and in

Bartlett and Vavrus's Comparative Case Study Approach to Learner Centred Pedagogy in Tanzania (looked at in more detail in Chapter 6, Methodology). They all try to capture the multiplicity and complexity of what happens in the classroom space, but to some extent, they could all be said to be trying to 'tame the spatial'.

Both Tikly and Alexander recognises the influence of wider layers or concentric circles of influence on learning and pedagogy. For Alexander, these concentric circles map onto the three levels of his framework of *Pedagogy as ideas*: classroom level, system/policy level and cultural/societal level (Alexander, 2008), and for Tikly, the circles are based on Bronfenbrenner's micro-, meso-, exo-, macro- and chrono-systems (Tikly, 2015). However, in Alexander's model, for example, by seeing the classroom as one level, or the centre of concentric circles, even though he recommends us to 'steer back and forth' between them, he positions the state as an outer circle and therefore 'out there'. Likewise, Tikly's macro-level represents 'the global'. Massey, however, encourages us *not* to see "'the global' as somehow always 'up there', 'out there', certainly somewhere else" but instead to see space as "a simultaneity of multiple trajectories" (Massey, 2005, p.61), where the global and local not only occupy the same space but work together to construct space. I am not suggesting for a moment that Alexander or Tikly represent the hegemonic discourses that Massey accuses of being anti-spatial; they need to be congratulated for grappling with the complexities and inter-relationships so well, but their frameworks, perhaps by necessity of representation, pull apart and separate out trajectories rather than highlighting the entanglements. I am not the first educationalist to point this out:

> On what grounds ought we to maintain that something global is 'larger' and something local is 'smaller', and that the nation is most likely somewhere in between? ... We seem required also to question any vision of pre-arrayed concentric circles showing one layer of social reality necessarily enveloping and surrounding another (Sobe, 2016, p. 159).

However, I may be the first to posit an alternative model which enables me to explore 'social reality' and the 'simultaneity of multiple trajectories'.

What a model based on Massey's space gives us that a narrower focus on the 'black box' of the classroom, or individual learners does not, is a way of applying

the same lens to the school, classroom, home or neighbourhood and exploring the trajectories and relations between them, rather than trying to understand the classroom in relation to a wider 'out there', where influences are seen on different levels or in concentric circles (e.g. Alexander, 2008, Tikly, 2015), in separate lozenges joined by arrows in a Theory of Change (Westbrook et al., 2013), on different axes (e.g. Bartlett and Vavrus, 2017c) or in Venn diagrams of factors (e.g. Tikly, 2011).

Partly this may be an issue of representation. Coming up with a clear visual representation of complex theories or relationships between phenomena is incredibly challenging and often necessarily reductionist. Alexander recognised it would take an "ingenious modeler" (2008, p. 32) to produce a composite model of his two frameworks of pedagogy. Massey herself speaks of the "crisis of representation" (Massey, 2005, p. 27) of space, highlighting that a map is not the territory, nor is the path the journey, and that attempts to represent space on "the flat horizontality of the page" only serve to strengthen the notion of space as merely surface, with no intrinsic temporality.

Two spatial models for exploring learning and pedagogy

As I struggled to get to grips with Massey's conceptualisation of space, I hankered for some kind of visual or physical hook to hang my developing understanding on. The physical model I first created was not intended as a tool to represent the final findings, but rather as an analytical tool to help me explore emerging themes through a spatial lens. I stated at the beginning of this chapter that a challenge of research of complex phenomena is to be able to hold them together so that relations between them can be investigated. That is what this model physically helped me to do.

The images in Figure 5 to Figure 11 on the next page represent some of the different ways I have been playing with materials to represent what Massey's relational space means to me, with doweling rods and pipe cleaners representing trajectories.

Figure 5 – My model of space 1 - the basic, 'empty' physical 'framework'	**Figure 6 - My model of space 2 - space as produced by bundles of trajectories**
Figure 7 - My model of space 3 - space as socially produced by the negotiations of trajectories	**Figure 8 - My model of space 4 – more people, with their own stories-so-far, negotiating more trajectories**
Figure 9 - My model of space 5 - a timely reminder: each trajectory is a changing phenomenon	**Figure 10 - My model of space 6 - bending and warping trajectories**

Figure 11 - My model of space 7 – No desire to tame the spatial! Space as *throwntogetherness*

This model was a fun and creative way to approach the further development of my theoretical and analytical framework but I was aware that, though I was loathe to lose the 3D-ness of it, a version that could articulate my spatial approach on paper would be useful. I also continued to question why the concentric circle model has remained a favourite for distinguished scholars Alexander and Tikly, and how I could use it as a starting point for my own conceptualisation.

My first step was to map the two concentric circle models to see how the different layers aligned, ensuring that the temporal component was also included. Table 2 shows this mapping, with the content drawn from Chapters 2 and 3. I must point out that Alexander never reproduced his model visually; the content in the table below comes from his framework of *Pedagogy as ideas* (2008), and his description of pedagogy as located, "within the concentric circles of local and national, and of classroom, school, system and state" (2001, p. 511).

Table 2 - Mapping Tikly and Alexander's concentric circle models

Concentric circle ring / Bronfenbrenner's levels of context	Tikly's *laminated learning system* (2015)	Alexander: *pedagogy as ideas* (2000, 2001, 2008)
Centre / Individual	Structures relating to the individual interact with their immediate environment to help or hinder learning e.g. genetic predisposition, structure of brain, health	See 'students' in *classroom level*
		Classroom level: ideas that enable teaching. i.e. 1. *Students*, e.g. characteristics, needs, motivation; 2. Learning, e.g. Nature and facilitation of learning, assessment; 3. Teaching, e.g. Planning and execution; 4. Curriculum e.g. ways of knowing and doing
First ring / Microsystem	Activities, roles and relations experienced by the learner, e.g. structure of home / school learning environment and pedagogical practices	
		⇧ Curriculum viewed as "a series of translations, transpositions and transformations" links the micro with the macro (i.e. the school and the state) (Alexander, 2001, p. 516) ⇩
Second ring / Mesosystem	Links and process between learner's settings, e.g. links between home and school	
Third ring / Exosystem	Structure of education system and global and national policy frameworks, e.g. teacher training, curriculum, assessment	System/policy level: ideas which formalise and legitimate teaching, i.e. 1. School, e.g. infrastructure; 2. Curriculum, e.g. aims; 3. Assessment, e.g. qualifications; 4. Other policies, e.g. teacher training, equity
Outer ring / Macrosystem	Political economy; culture and values; national, regional and global education discourses	Cultural/societal level: ideas which locate teaching, i.e. 1. Community, e.g. family and local attitudes; 2. Culture, e.g. collective ideas and values that shape views of society and education; 3. Self, e.g. what it means to be a person
Chronosystem	Changes in learning and the environment over time	4. History: "the indispensable tool" for understanding the present state of education and its future potential (Alexander, 2004, p. 12)

Both Tikly and Alexander make use of a concentric circle model but both seem to some extent, to be restricted by its structure, for example Tikly explaining with double-headed arrows that relationships between structures and processes on different levels are "dynamic and dialectical" (2015, p. 245), and Alexander explaining the need to "steer … constantly back and forth between [the concentric circles]" (Alexander, 2001, p. 511). In this study, I build on the models presented by Tikly and Alexander but demonstrate how a spatial approach can free us from the limitations of these models to look more freely at the entanglements between phenomena from different levels. I will present this in a number of 'remodelling' steps breaking down the thinking that takes us from a concentric circle model based on Tikly and Alexander's models of contextually situated learning and pedagogy respectively, to a visual model of Massey's socially produced space (see Figure 12 to Figure 16 on next pages).

Figure 12 shows the familiar model, moving from small, individual and local levels outwards, and often seen as upwards, to big, global levels (as seen in Table 2). In Figure 13, the separate circles within each layer of the concentric circles represent the multiple phenomena that exist within each level, for example, classroom assessment as a grey circle within Tikly's microsystem and Alexander's classroom level, or national examinations as a blue circle in the exosytem or system level. Figure 14 adds the temporal dimension which is represented by the shift to a 3D model. This important time aspect is acknowledged by Tikly but not represented in his visual model. We can see that each individual phenomenon, or trajectory, has its own history. In Figure 15, we finally breakdown the artificial boundaries that were holding these trajectories back from interacting with others. The colours mean that we can still see which trajectories originate from which level, for example, we can see the interaction between the grey classroom assessment trajectory and the blue national examination trajectory, but they are no longer artificially distanced; they can occupy, and more than that, co-produce the same space. Finally, Figure 16 attempts to represent *throwntogetherness;* the messy "contemporaneous plurality" (2005, p. 9) and "simultaneity of multiple trajectories" (2005, p. 61) that characterise Massey's socially produced space.

Figure 12 – Remodelling concentric circles 1 - concentric circles showing show different levels / scales of related systems
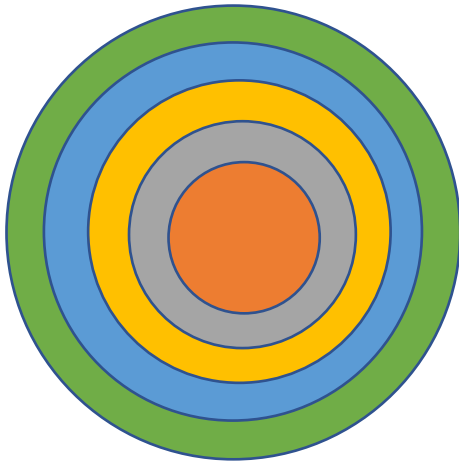
Figure 13 - Remodelling concentric circles 2 - each concentric circle can contain multiple phenomena
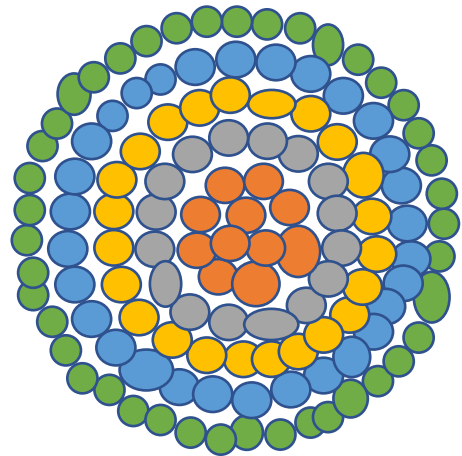
Figure 14 - Remodelling concentric circles 3 - each phenomenon, or trajectory, is changing over time, and has its own history
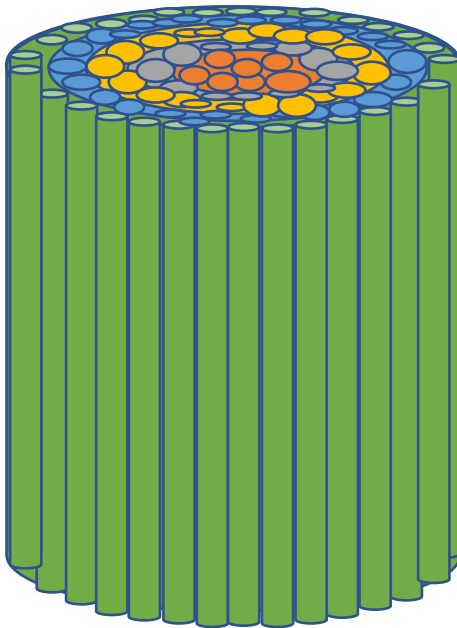
Figure 15 - Remodelling concentric circles 4 - trajectories interact with each other, within and across levels in multiple ways
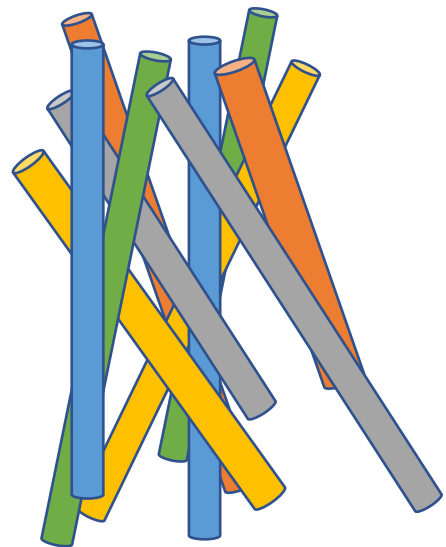
Figure 16 - Remodelling concentric circles 5 - "What is special about place is precisely the throwntogetherness" (Massey, 2005).
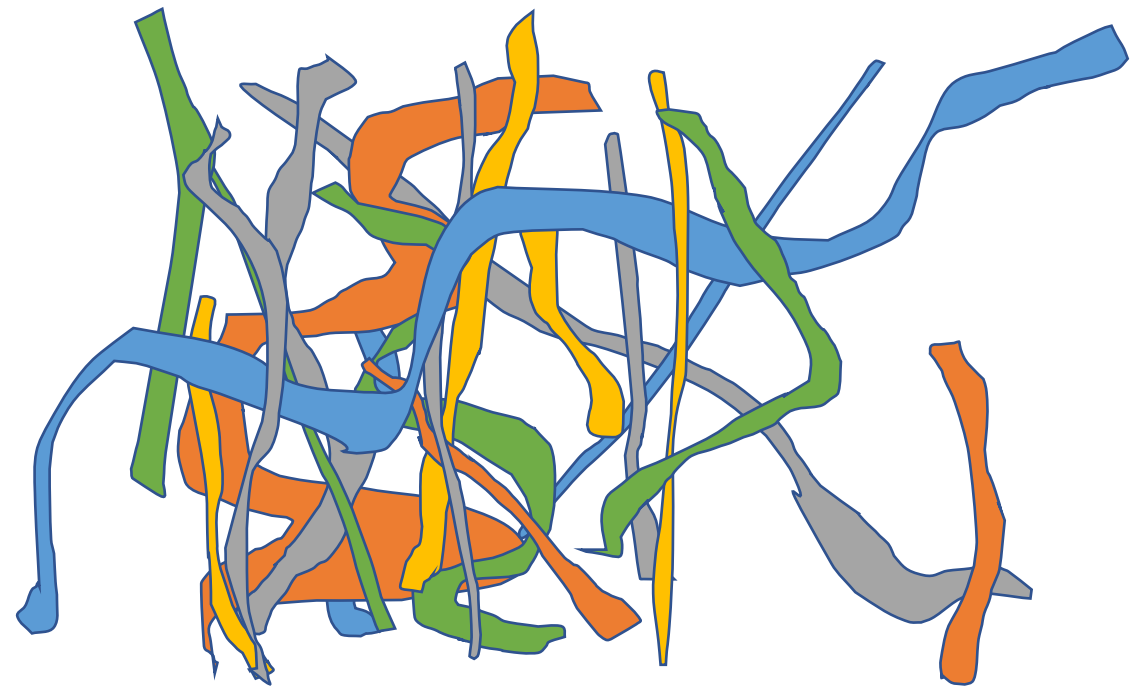
In this study, like Baldwin (2012), I am interested in identifying the interacting trajectories that produce the spaces of the classroom, school, home and neighbourhood, and how pupils and teachers contribute to these spaces by negotiating these trajectories. To understand more about learning and pedagogy, this approach does not hold the classroom at the centre with external 'influences' to be examined, or the 'background context' to be understood, but rather it examines the 'meeting of social relations' or trajectories in and across different locations and the social effects that are produced as a result (Massey, 1994). It is through this concept of trajectories and the production of space that I have refined my research questions. The original broad guiding research questions remain but, in light of the spatial approach outlined in this chapter, the first question is followed by two guiding sub-questions expanding on the concept of *learning spaces*:

1. How do primary teachers and pupils perceive and experience school, home and neighbourhood *learning spaces*?

    a. How are these spaces produced?

    b. And what are the implications and opportunities for learning in these spaces?

2. What are the implications of this for pedagogy?

In order to answer question 1a. I will draw on participants' perceptions and experiences to identify the different trajectories in the school, classroom, home and neighbourhood, from their (and my) "angle of vision" (Massey, 2005, p. 80), and the relations between these trajectories. I will explore how these bundles of trajectories are contributed to and negotiated by the people in those spaces and how they are negotiated differently in different spaces. This, in turn, will lead us to question 1b. which addresses Massey's assertion that, "the meeting of those social relations at that location … will in turn produce new social effects" (Massey, 1994, p. 168), and in this study I am interested in the social effects on learning, or the implications and opportunities for learning. From this focus on learning, and with an enhanced understanding of learning across different spaces, I can then move on to a discussion of the implications for pedagogy, for the distinct bundling will also have distinct pedagogical effects.

Conclusion

In conclusion, since becoming familiar with Massey's conceptualisation of space, I have found it to serve as an increasingly useful, clear and compatible lens for this study. Firstly, viewing Bukoba spaces through this spatial lens helps me to hold together the multiple intertwined trajectories that my participants negotiate every day, to hold the global or national, the regional, cultural, local and the intimate spaces of home and self so that the complex relations between them can be examined. I feel this gives me permission to embrace the messiness and complexity, to throw myself into the *throwntogetherness*, and take a "leap into space" (Massey, 2005, p. 80). Secondly, Massey's focus on time and multiplicity in space-time, not only adds to the rich messiness of looking at trajectories in, for example, the classroom, but it also insists upon a non-deficit discourse for a study of Tanzania, a 'developing country'. By both recognising Tanzania as spatially unique, i.e. not defined by progress along a manufactured single trajectory of development, and challenging the taken-for-granted national boundaries as containers for society, this approach supports the telling of a new and alternative stories, such as ones that do not portray failure and waste and that make children visible, making room for a "multiplicity of trajectories, and thus potentially of voices" (Massey, 2005, p. 55).

Chapter 5. Tanzania: education, learning and pedagogy

Introduction

> The quintessentially English cup of tea was born out of the actions of the East India Company, and sugar plantations in the Caribbean (Massey, 1993, p. 145).

Here, Massey reminds us that what makes a place unique cannot be separated from its interdependence with other places, and so again, we find ourselves with an explosion of related issues in the endeavour to write a chapter 'about Tanzanian education'. When Baldwin put Massey's relational sense of space in to practice in his methodology, his first step was to conduct a historical review of the literature to:

> Identify and understand the trajectories which have been clearly influential in a place, that is, which emplaced people, have either been compelled to or have chosen to negotiate relationships with (2012, p. 211).

In this chapter I take a similar approach, identifying historical, political, cultural, economic and social trajectories that have shaped the education landscape in Tanzania and, as a result, children's and teachers' experiences negotiating that landscape. As well as linking closely to Chapter 4, which outlines the spatial-temporal approach, the structure of this chapter draws heavily on Alexander's (2000) comprehensive approach to describing education systems.

The first section looks at various geographical and social aspects of Tanzania which can give a sense of a country to an outsider, broadly looking at who lives where, and introducing some key aspects of urbanisation. The following sections move on to education in Tanzania. Section two lays out how the Tanzanian education system is organised. Section three looks at education goals, curriculum and assessment and focuses on the current policy and practices, at times highlighting the implementation gap between the two. This is followed by an attempt to trace several of the historical trajectories which have produced the educational spaces that exist today. Finally, I provide a short literature

review which presents what we already know about learning and pedagogies in Tanzania and further frames the contribution that this study will make.

Tanzania: a brief introduction

The United Republic of Tanzania (URT) is made up of mainland Tanzania and Zanzibar archipelago, including Unguja (also referred to as Zanzibar). Tanzania, formerly Tanganyika, which gained independence in 1961, merged with Zanzibar, independent in 1963, to form the URT in 1964[6]. Julius Kambarage Nyerere was the first Prime Minister of Tanganyika and the first President of the URT. His party, the Tanganyika African National Union (TANU) merged with the sole Zanzibari Afro-Shirazi Party (ASP) to form Chama Cha Mapinduzi (CCM- *the Tanzania party of revolution*) in 1977 and they have been in power ever since, even with the shift to a multi-party democracy in 1992 (Ngasongwa, 1992). The philosophies and policies of TANU and the CCM under Nyerere's 23 year administration are still evident in discourses and practices today, for example in continued reference to his education policy, *Elimu Kujitegemea* (Education for Self-reliance), although they may look and play out very differently (see HakiElimu, 2021, Baganda, 2016).

The URT is divided into 31 regions (*mikoa*) that are further divided into administrative districts (*wilaya*) and wards (*mitaa*). As part of decentralisation, governance of the regions is through the President's Office Regional Administration and Local Government (PO-RALG). Tanzania has an estimated population of 54.3 million, having more than quadrupled in size since 1967 (NBS, 2020). Although rapidly urbanising, it still has a rural population of 71% (NBS, 2020). However, in the next 25 years, the balance will tip from the majority of the population living in rural areas to urban areas (UN Population, 2018). Compared with neighbouring countries, Tanzania's current rate of urbanisation is both faster and steeper (Moshi et al., 2018). This rapid growth, combined with a historical lack of effective urban planning, results in urban informal housing (estimated at 70%), a lack of social services and inequitable use of urban space (Moshi et al., 2018). Having said this, much of the urbanisation literature in

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[6] In this study, I am looking at the primary education in mainland Tanzania and I will refer to education data for it rather than the whole URT.

Tanzania (and more widely) tends to focus on the 'mega-cities' like Dar es Salaam, but the majority of rural-urban migration is to regional capitals or other urban centres, an area that is overlooked in research (Moshi et al., 2018, Wenban-Smith, 2015).

> Secondary towns occupy a unique middle ground between semi-subsistence agriculture and the capitalistic city; between what is close-by and familiar and what is much further away and unknown (Ingelaere et al., 2018, p. 273).

The site of this study is one such secondary town, Bukoba, which will be presented in more detail in Chapter 7. This quote is also a reminder to accommodate tensions and *throwntogetherness*, to consider rural-urban as a continuum and not in fixed terms; rural-urban boundaries are porous and terminology is fluid.

In terms of the linguistic landscape, Kiswahili[7] is spoken and understood across the URT, with English as a much less used, second official language. Around 95% of the population are estimated to have mastered Kiswahili, and it is the medium of instruction in government primary schools (Brock-Utne, 2017). English Medium Instruction (EMI) is used in government secondary school (more on this complex area in *Languages in Tanzanian education*). Around 90% of Tanzanians regard themselves as bilingual, but in Kiswahili and another local language, not English (Vavrus, 2002). Across the country, over 100 local languages are used, each strongly associated with particular ethnic groups and geographical areas (see Adamson, 2020b for more on the ways languges are counted and grouped). The population size of ethnic groups has not been officially recorded since independence as the promotion of Kiswahili as a unifying national language was prioritized (Vavrus, 2015). As part of his successful campaign for Kiswahili as a lingua franca, the founding president, Nyerere, said: "African nationalism is sweeping away tribalism because it is obvious that one cannot be both a nationalist and a tribalist" (Nyerere (1963) in, Lema et al., 2004, p. 13). However, ethnic or tribal identity is still strong and distinctions across groups are widely recognised. For example, the Chagga in Kilimanjaro region and the Haya in Kagera region, where this study takes place,

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[7] The English name of the language is *Swahili* but in Swahili it is called *Kiswahili*. It is common in English language academic and official texts to refer to the language as Kiswahili (e.g. Brock-Utne (2017) and Uwezo (2019)) so I will use this term.

are regarded as politically influential peoples and regions (Vavrus, 2015). Overall, though, the local languages associated with the ethnic groups are seen as low status and their use in schools or other formal contexts is discouraged (Adamson, 2020b, Wedin, 2005).

Tanzania's development strategy is articulated in *The Tanzania Development Vision 2025* with the overarching goal of becoming a middle-income country by 2025. The Vision document imagines the 21st century as one "characterised by competition" (URT, 1999, p. v) and therefore signals distinct changes and challenges for Tanzanians to be active participants in the global marketplace. However, the legacy of Nyerere continues as the plan expresses the need for "Tanzanian society as a whole to treasure a competitive development mindset as well as nurturing a self-reliance culture" (URT, 1999, p. xi).

Tanzanian primary education: Structure and control

Decentralisation?

Decentralisation was a core part of independent Tanzania's political strategy, and in particular, education processes were intended to link closely to village level participatory democratic processes (Baganda, 2016). Seen as a very mixed success (Baganda, 2016, Wenban-Smith, 2015), a decentralised system remains today and Table 3 (see next page) shows the administrative divisions by level together with the education coordinator at each level. Whereas the Ministry of Education, Science and Technology (MoEST) is responsible for the majority of policy and planning, the PO-RALG's remit is operational and administrative.

Table 3 - Administration of primary education

Administrative Divisions	Name	Education coordinator
National	**Ministry of Education, Science and Technology** (MoEST)	
Regional (Mkoa)	**President's Office - Regional Administration and Local Government** (PO-RALG) 31 regions with **Regional Administrative Secretariat**	Regional Education Officer (REO)
Key para-statal institutions / divisions: • The Tanzanian Institute of Education (TIE) • National Examinations Council of Tanzania (NECTA), • School Quality Assurance (SQA) Division		
District (Wilaya)	184 **Local Government Authorities** (LGA)	District Education Officer (DEO)
Ward (Kata)	**Ward committees** Sub-divided into Urban Streets (Mitaa) and Rural Villages (Vijiji)	Ward Education Coordinator (WEC)
School level	**School Management Committees** (SMC)	SMC Chairperson and Head Teachers
	School Management Team (SMT)	Head Teacher

At the national level, TIE's remit is "to facilitate provision of quality education through quality curricula in pre-primary, primary, secondary and teacher education" (TIE, 2021) and as such it develops and provides national curricula, syllabi and curriculum support materials, such as government approved textbooks, for primary education and primary teacher education. The institute has shifted in focus, governance and name several times since its founding as the Institute of Education, a part of University College of Dar es Salaam, in 1963. Its current structure and remit have been in place since 2009[8].

NECTA was established in 1973 and is responsible for administration of all national examinations, including the primary education Standard Four National Assessment (SFNA) and Primary School Leaving Examination (PSLE). Previous to its founding, Tanzanian students' principal examinations were administered by

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[8] I add these historical details throughout this chapter to highlight the relative 'newness' of structures and institutions, which I think is particularly important when considering the 'learning crisis' discourse and other deficit views of Tanzania as 'lagging behind' in global standards and goals.

the UK's Cambridge Local Examinations Syndicate (1947-1968), or, for a brief period, the East African Examinations Council (1968 – 1973). Establishment of national examination systems which seek a high degree of legitimacy and aim to meet the public's criteria of fairness, security and relevance require considerable resources and this has been a challenge for many Sub-Saharan countries (Kellaghan and Greaney, 2005, Eckstein and Noah, 1993), Tanzania included.

At the time of writing, the third national body mentioned in Table 3 was the newest. The SQA Division, established in 2017, replaced the former school inspectorate and is closely linked to the MoEST's quality agenda (MoEST, 2017). The SQA division was set up as part of the wider Education Programme for Results (EPfR), a $437 million "innovative, results-based financing programme" funded by the World Bank, FCDO, and the Government of Sweden (Cambridge Education, n.d.). SQA uses a Whole School Approach, which also reaches out to community members, and is focused on school improvement. An example of the change in approach in the SQA handbook is that, as well as looking at pupils' exercise books to ascertain if pupils' work is assessed "regularly and thoroughly" as the old inspections did, the SQA officers are also asked to assess if "teachers routinely provide work which challenges learners through problem-solving or research activities" (MoEST, 2017, p. 18). In her study, Barrett found that in response to the old custom of inspectors checking exercise books, teachers made sure to mark all work set, even in very large classes, even though it was, "extremely time-consuming and frequently impinged on lesson time" (2005b, p. 215). However, the language of 'SQA' does not seem to have penetrated very far; for example, the 2019 Uwezo learning assessment report (Uwezo, 2019) continued to talk about 'inspections', as did the participants in this study.

With TIE, NECTA and SQA operating at national level, it becomes clear that decentralisation has involved delegation of education administration whilst maintaining central control of power and authority regarding the direction of primary education (Tao, 2013). Thus, one of the main roles of the coordinators at each level is to liaise upwards and downwards, passing on information and resources across levels, and reporting upwards for governance and accountability. A recent critical analysis of the government's main policy document guiding primary, and indeed all levels of education, Education and

Training Policy (ETP) (MoEST, 2014), found that the policy "emphasizes the centralization of power in decision-making and education provision" (HakiElimu, 2021, p. 17) without specifying key roles for other stakeholders.

Key policies and programmes

The Education and Training Policy (ETP) (2014) is the main MoEST policy document and it covers all levels and sectors of education. Although there are several parts of it that have yet to be implemented, one key policy that was also a major campaign promise in 2015, and which comes across as a powerful policy trajectory in this study, was for free and compulsory basic education. Table 4 below shows the structure of the education system with fee-free basic education (FBE) shown. This is not the model laid out in ETP which called for two years of pre-primary and six years of primary, but this is the final model in the curriculum and is being carried out in practice. It is based on a 1+7+4+2+3+ structure.

Table 4 - The education system in Tanzania

No. of years	1	7							4				2		3		
STAGE	Pre-primary	Primary							Lower / ordinary secondary				Higher / advanced secondary		Tertiary / higher education		
		Standard							Form								
		1	2	3	4	5	6	7[9]	1	2	3	4	5	6			
AGE	3-5 yrs old	6- 13 yrs old							13 – 19 yrs old								

⇐ fee-free compulsory basic education ⇒
12 years

After President Magufuli's[10] election in 2015, this policy was rolled out, communicated in 'Circular 5' authorising the cancellation of all school fees in government primary schools and, importantly, all parental financial

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[9] The orange highlighted sections illustrate the structure that is articulated in the ETP but have since been revised; 7 years of primary education remain, with one, not two, years of pre-primary.

[10] President Magufuli died suddenly in March 2021 and has been succeeded by his vice-president Samia Suluhu Hassan, now the first female president of URT.

contributions, from 2016 (Baganda, 2016). This second point is important as 'free' education and even 'fee-free' education can be misleading terms and have a complicated history in Tanzania. For example, in the 1970s school fees were abolished but parents still had to pay a nominal flat rate contribution regardless of income, then in the 1980, under pressures from Structural Adjustment Programmes (SAP), fees were reintroduced, at the same time as privatisation and the free market took hold in education policies (Baganda, 2016). Then government school fees were abolished again in 2002 under the Primary Education Development Plan (PEDP), but with examinations fees and contributions for school meals still mandatory.

This most recent push for Universal Primary Education (UPE) through FBE does seem to be the most comprehensive attempt to remove all financial barriers for children to attend school. However, although there are indications of significantly increased enrolment, it is worth bearing in mind that there were similar patterns with the PEDP but the increase was partially attributed to state threat of punishment for parents who failed to send their children to school (Vavrus, 2021). Other undesirable side effects of FBE have been reported, including, the missed opportunity to "foster[…] a democratisation process of community ownership and governance" due to the government's exclusive focus on building schools and increasing enrolment (Hartwig, 2013, p. 487), and disparity across schools as some still attempt to collect contributions to cover missing government disbursements (HakiElimu, 2021).

Looking at this through a spatial lens, we are reminded of the multiple trajectories that intermingle with this policy trajectory, producing multiple effects. To illustrate this using a policy example, Tanzania's FBE policy can be seen as taking an inherently inclusive approach where, "quality education is the basic right to every Tanzanian" (MoEST, 2019, p. viii) and the curriculum aims to "address the needs of all learners, irrespective of their differences" (MoEST, 2019, p. x). However, in efforts to ensure accountability for this quality inclusive education, the government's Big Results Now (BRN) intervention introduced apparently low-stakes School Performance Rankings, which had the "perverse behavioural response" of schools excluding low-performing pupils in order to increase their school's ranking (Cilliers et al., 2021, p. 5).

There are also time-lags in policy-practice implementation. Although ETP states that basic education will be *free and compulsory,* this has yet to be fully implemented. Access to secondary schooling is still dependent on passing the PSLE, and the results are used to determine what kind of secondary school students attend, meaning that the transition remains competitive and with lingering aspects of the "pyramidal" (Kellaghan and Greaney, 2005, p. 272) or "narrowing staircase models" (Croft, 2010, p. 24) which means that the highest achievers benefit from the highest quality government secondary education. In these examples, we see the school ranking, examinations and FBE interacting with each other to produce distinctive school spaces which may not be as intended in inclusive, quality-focused policy discourses.

The Global education agenda in Tanzania: The Sector Wide Approach

One of the main ways that global and other international discourses enter Tanzanian education is through donor aid and interventions. In Tanzania, the Education Sector Development Plan (ESDP) 2016/17 – 2020/21 is the main instrument that articulates the government's priorities and plans, supported by donors or Development Partners (DP) in a Sector-Wide Approach (SWAP). International Development Targets (IDTs), e.g. based on the MDGs or SDGs, are used as key mechanisms to coordinate programmes and funds (Kuder, 2005), for example in improving literacy and numeracy or school-feeding programmes. There are a number of issues with SWAPs (see Worley, 2021, UNICEF, 2020) and though the use of IDTs might be good for mobilising efforts globally, these standardised, one-size-fits all targets do not necessarily reflect Tanzania's own priorities. IDTs are seen to:

> Serve short-term global aid management needs at the expense of prioritising needs associated with the achievement of long-term domestic development goals (Kuder, 2005, p. 166).

In addition, further conflicts and inconsistencies can be found within DP approaches; as we've seen, trajectories can pull in opposite directions, producing unwanted effects. An account of World Bank interventions at the time of Tanzania's PEDP shows this:

> Donor pressure, particularly by the World Bank, was imbued with contradictions as the Bank emphasized the importance of rigorous, standardized testing to measure educational quality and hold teachers accountable while simultaneously urging countries to leave behind forms of assessment that relied on memorization (Bartlett and Vavrus, 2013a, p. 96).

This should not be regarded as a uniquely Tanzanian or even majority world problem as similar conflicts of assessment, accountability and pedagogies are common (see Wood, 2020, for an example in England).

Going back to Massey's opening quote about the "quintessentially English cup of tea", this short section has highlighted the intermingling and tensions of global education trajectories in Tanzanian education, and of course these tensions can be traced back in time through missionary, colonial and independence periods (see *Origins and development*).

Goals, curriculum and assessment

It can be challenging to chart the curricular changes in Tanzanian primary education. Documentation has changed, at least twice, between the start of fieldwork in 2019 and revising this chapter in 2021. These changes in policy or documentation sometimes reach the teachers and sometimes do not; they are not necessarily known about or implemented in the classroom, illustrating the "struggle and compromise and ad hocery" which exists between policy and practice (Ball, 1993, p. 16). Capturing this and much more, Frances Vavrus named her excellent ethnographic memoir on Tanzania *"Schooling as Uncertainty"* (2021).

Curriculum reform

The introduction to the most recent curriculum (3rd edition, MoEST, 2019) explains that though the previous curriculum reform of 2005 saw a shift in focus from content to competence, it did not go far enough, hence the need for further reform. The overall aims are:

> To ensure the provision of quality education and the production of patriotic and self-reliant graduates who can speak more than one language. The primary education also aims to produce graduates with various knowledge and skills that will enable them to play a significant

role in the development of Tanzania to achieve an industrial economy (MoEST, 2019, p. 2).

This new curriculum covers standards (Std) 1 to 7, but clearly distinguishes the two stages of Std 1 and 2, then Std 3 to 7. The focus on the early stage is on literacy and numeracy, in response to evidence of low learning outcomes in these essential foundational years. This is also articulated in the ESDP (MoEST, 2018) which therefore can be seen to reflect global education priorities as we saw in Chapter 2. Linked to this, English as a subject is not introduced until Std 3 making more space for Kiswahili literacy in the early years, but leaving less time to support English competencies before the shift to EMI at secondary school.

The improvements to the Std 3 to 7 curriculum have "considered the needs of the society, the development of science and technology, and the enhancement of learner-centred teaching and learning" (MoEST, 2019, p. 2) and its aims are aligned with both national instruments such as *Tanzania Development Vision 2025* and international instruments e.g. the SDGs. The language in the first few pages demonstrates many of the "uneasy tensions" inherent in a curriculum drawing on an African socialist legacy whilst endeavouring to prepare students for a competitive, capitalist world: "the production of patriotic and self-reliant graduates", "prepare Tanzanian pupils to live in a competitive world", "implemented by the government in collaboration with the public and private sectors", "the balance between education and the needs of the community" (MoEST, 2019). The promotion of learner-centred teaching is linked directly to the philosophy of Education for Self-Reliance (ESR), and not to any 'western' version, and it highlights several key aspects which underpin their approach, such as:

> Developing critical thinking and inquir[ing] mind; learning both theoretically and practically; developing self-confidence, decision making, and respect for human values; participating in economic activities (MoEST, 2019, p. 6).

There are eleven objectives and twelve competencies laid out in the Std 3- 7 curriculum. Many of them are very similar but the competences are more often completed with phrases such as "in real-life situations", or "in the community" to emphasise the wider application of the learning. Table 5 shows extracts from each.

Table 5 - Extracts of primary curriculum objectives and competencies (Std 3 – 7). Source: MoEST (2019)

Objectives of primary education for Standard III-VII	Competencies in Standard III-VII
(i) develop skills in reading, writing, arithmetic and communication;	(i) communicate correctly in Kiswahili and English both orally and in writing;
(iii) observe and practise the principles of the rule of law;	(iii) use mathematical concepts and principles *in daily life situations*;
(v) develop critical thinking, creativity and problem-solving skills;	(iv) use scientific, technological and technical skills *in real-life situations*;
(vi) recognise the importance of ethics, integrity and accountability as the foundation of a good citizen;	(vi) respect the diverse religious beliefs and ideological differences *in the community*;
(ix) appreciate and value work;	(ix) be patriotic in carrying out ones' activities;
(xi) develop readiness for continuing education and lifelong learning (MoEST, 2019, p. 11).	(xii) collaborate with others in performing acceptable *communal activities* (MoEST, 2019, p. 12, my emphasis)

Sitting under these broad objectives and competencies are the subject competencies. Whereas some neighbouring countries have included a shift to thematic curricula in their reforms, treating concepts holistically, under meaningful relevant themes (see Altinyelken, 2010a for the case of Uganda), Tanzania has maintained subject divisions. Std 3 and 4 take six subjects: Kiswahili, English, mathematics, science and technology, social studies (covering history and geography), civic and moral education, and religious education. Stds 5 to 7 do the same with the addition of vocational skills. Pupils are assessed on all subjects apart from religious education in both the SFNA and PSLE. Subjects such as sports, games and arts and income-generating/self-reliance activities are designated as extra-curricular, along with self-study/library (MoEST, 2019). There is also a very wide range of cross-cutting issues that are to be integrated into the curriculum subjects, e.g. looking after the environment, including cleaning and conserving the school and community environments.

To support the delivery of the curriculum, TIE produces subject syllabi, textbooks, teachers' guides and a variety of lesson notes and past papers are available online and in new mobile apps such as *THL-eschool*. At the time of this study, textbooks had not been distributed for the new curriculum for Std 4-7. All teachers are provided with standard formats for Schemes of Work and lesson plans as shown in Figure 17 and Figure 18.

Figure 17 - Scheme of work

Figure 18 - Lesson plan format

The school year is divided into two terms, and a total of 39 weeks. The school day is divided into eight periods at 40 minutes each, with Fridays as a shorter day of six periods. Table 6 shows the allocation of time to each subject and highlights the curriculum priorities and shifts across stages.

Table 6 – Number of periods per subject

Subject	No. of periods/wk: Std 3-4	No. of periods/wk: Std 5-7
Kiswahili	5	5
English	7	6
Mathematics	6	5
Science and Technology	5	5
Social Studies	3	3
Civic and Moral Education	5	5
Vocational skills	-	2
Religious education	1	1
Extra-curricular activities		
Subject clubs / other learning	2	2
Sports and art	2	2
Self-reliance activities	1	2
Independent learning	1	1

As noted earlier, the new curriculum delays the introduction of English until Std 3, but when it is introduced, it has the highest allocation of time, suggesting an element of 'catch-up'.

Languages in Tanzanian education

Language and in particular languages in education in Tanzania is a complex and contentious area, detailed discussion of which is beyond the scope of this study. As mentioned, the language of instruction (LOI) in secondary schools and in higher education is English, meaning that most primary teachers have, in theory, completed at least four years of education in the medium of English as well as, previously seven, but now five years learning English as a subject. However, even before more recent reforms, the language of instruction of the secondary curriculum had been widely criticised as students and teachers are poorly equipped to work in English (Wedin, 2010, Brock-Utne, 2007). The result is that, in practice, although secondary students' performance is examined in English in high stakes examinations, the secondary curriculum is often delivered largely in Kiswahili with heavy use of code-switching to support both the teachers and students to manage the teaching and learning process across languages (Brock-Utne, 2017). This use of code-switching is also seen in the teaching of English as a subject in primary school (Brock-Utne, 2017).

Examinations and assessment

Whereas the curriculum has seen several significant reforms in the last twenty years, the format of the national examinations has remained largely the same. There was no shift in assessment when the 2005 focus shifted from content to competences and now there are only very minor changes. The PSLE paper has 45 questions: 40 multiple choice, and 5 short answer questions. The official format guidelines show the competencies to be tested for each subject and the cognitive levels included, based on a version of Bloom's Taxonomy, covering lower-order skills such as *remembering* and *understanding*, all the way to *evaluating* and *creating*. However, it is generally acknowledged that the PSLE tests recall of factual information and encourages rote learning and memorisation (Vavrus, 2021, Ahmad et al., 2016, Roberts et al., 2015, Tao, 2013, Bartlett and Vavrus, 2013a, Barrett, 2007). Even if the curriculum and

syllabi have changed, teachers "struggle with implementing a competency-based curriculum when the high-stakes, national exams continue to emphasize the recall of facts" (Bartlett and Vavrus, 2013a, p. 96). The advice in the quote below clearly lays out the ideal logical relationship between curriculum and examination.

> What we need to do now is think first about the education we want to provide, and when that thinking is completed think about whether some form of examination is an appropriate way of closing an education phase. Then such an examination should be designed to fit the education which has been provided (Nyerere, 1967 in Lema et al., 2004, p. 80).

It seems that this simple approach has not been heeded 55 years on.

Roberts's study found that the PSLE permeated almost every part of school life, and in particular, "teachers' interactions with students including their instruction and management strategies are compromised by national exam preparation" (Roberts, 2015, p. 32). When mapping this on to Biesta's purpose of education, that pupils *learn something*, and *learn it for a reason* (2010), the intended curriculum is designed so that pupils learn a range of competences in order to become patriotic, self-reliant citizens who can contribute to Tanzania's social and economic development (MoEST, 2019). However, the enacted curriculum focuses on learning factual information in order to perform well in national examinations. This produces not just a dual curriculum but a dual purpose of education.

Further to this, the high-stakes nature of the PSLE makes the education transition periods at the end of Std 7 a "critical juncture" and a "precarious period" (Vavrus, 2021, p. 280) for pupils in their stories-so-far. At the moment, there is a policy time-lag and the primary section of FBE is currently 'free and compulsory', but the secondary section, to Form 4, is still to be fully implemented. This raises the question, what place will there be for the PSLE if secondary education becomes truly compulsory?

Considering that the examination is currently misaligned with the curriculum, it should not stand as a meaningful proxy for the achievement of learning outcomes, or the provision on quality education. However, this is frequently

what happens. The publication of school ranking based on PSLE results has created a "culture of accountability" (Moshi et al., 2018, p. 37) where there is more pressure on educators to focus on the examination performance. Likewise in national programmes such as BRN, donors recognise that "exam results are an imperfect proxy for educational quality but they are the best national measure available" (Todd and Attfield, 2017) and as a result examination performance is emphasised further as once again, "we end up valuing what is measured" (Biesta, 2010, p. 26).

Origins and development

In simple chronological terms, there would seem to be a staggering amount of ethnocentrism to consider Tanzanian history in terms of 'colonial' and 'post-colonial' or independence stages when colonialism lasted for 76 years, independence for 60 and Olduvai Gorge has yielded evidence of early human life 3.6 million years ago (UNESCO, 2021a). As Alexander (2000) found when considering the starting point for his account of the origins of Indian primary education, the convenient splitting of history into colonial and post-colonial stages, "underplay[s] both geography and history" and "compound[s] British and European hegemony" (2000, p. 88). More critically, using these terms to signify simple linear stages or to suggest it is "finished business" (Smith, 2012, loc. 2139) or the "final closure of a historical epoch" (Hall, 1996, p. 243) does not recognise the epistemological shift in addition to the chronological. Hall looks at the meaning of 'post' in 'post-colonial' and puts forward:

> 'After' means in the moment which follows the moment (the colonial) in which the colonial relation was dominant. It does not mean ... that what we have called the 'after-effects' of colonial rule have somehow been suspended. It certainly does *not* mean that we have passed from a regime of power-knowledge into some powerless and conflict-free time zone (Hall, 1996, p 254).

This reminds us of the colonial trajectories actively contributing to the production of space today. Vavrus (2015) reassures researchers that they do not have to look back over centuries of history for every study but she does encourage the use of critical histories and geographies to balance the focus on contemporary patterns and understand the antecedents to current crises and disparities. In applying a spatial lens, this study sees the temporal as inherent in

the spatial and so looks at how, in Tanzanian education, these 'after-effects' and new configurations play out together.

Since the first version of the current education system was established after independence, it makes sense to start there whilst still leaving room to trace backwards and forwards across other periods. As you will have seen, the temporal has already been woven into the sections preceding this. The two 'historical snapshots' which opened this thesis provide a useful illustration of some of the relations and tensions that characterise education in independent Tanzania, and the attempts that the new nation made to cut its own path, stepping away from the single story of capitalist development.

Those snapshots, linking Nyerere's story with the World Bank's, show that the single story of progress and development seems to have a short memory, and leaves little room for divergence from the single trajectory or criticism of "the grotesqueness of the maps of power" (Massey, 2005, p.14). They also highlight some of the multiple trajectories producing particular social effects. It is, however, worth noting that they also present Tanzania from a particular angle of vision, and though it is strongly associated with its socialist history, this is also a form of 'grand narrative' and contains what could be seen as an essentialising 'sense of place' associated with fixed identity and nostalgia (Massey, 1994). There is literature that has questioned Tanzania's pure socialist, class-less credentials suggesting that Nyerere generalised based on his own ethnic group when in fact there were class societies in precolonial Tanzania, and also that it suited his own political purposes not to question the validity of the historical socialist narrative (Maghimbi, 1994). This reminds us to accommodate a range of sources of evidence and remember that culture is an ever-changing process, not fixed (Bartlett and Vavrus, 2017c), and ideas of place are dynamic, not static, and seen from multiple perspectives (Massey, 1994).

Ujamaa and Education for Self-reliance

As we saw in the *Curriculum Reform* section, the philosophies of the 1967 ESR are still cited in policy today. Nyerere strongly linked his approach to education with the principles of socialism:

> This is what our educational system has to encourage. It has to foster the social goals of living together, and working together, for the common good. It has to prepare our young people to play a dynamic and constructive part in the development of a society in which all members share fairly in the good or bad fortune of the group, and in which progress is measured in terms of human wellbeing, not prestige buildings, cars, or other such things, whether privately or publicly owned. Our education must therefore inculcate a sense of commitment to the total community, and help the pupils to accept the values appropriate to our kind of future, not those appropriate to our colonial past (Nyerere, 1967 in Lema et al., 2004, p. 72).

However, in a context of scarce resources, it was difficult to cut all ties with the 'colonial past'. Although Tanzania sought a new direction and significant education reform with independence, they did not have the established institutions, financial and human resources to reform curriculum, policy and assessment from scratch so ended up having to use and adapt colonial materials and systems. Therefore, whilst the new Tanzanian curriculum was relevant to local needs, the examination system was "rooted in its colonial educational system" (Bartlett and Vavrus, 2013a, p. 94). Nyerere was not blind to this conflict or to other 'legacy' aspects of the education system which were at odds with ESR, such as the use of corporal punishment (Mbilinyi, 2003). Teachers also started to question the fit of ESR, promoting creativity and pride, and corporal punishment, finding them incompatible:

> It encouraged passivity, not creativity; obsequience, not a free independent citizen and/or student; humiliation and shame rather than pride (Mbilinyi, 2003, p. 4).

This is also a reflection of the arguments that are made about the incompatibility of LCE and corporal punishment (Sakata, 2019).

Another thread of ESR can be traced through curriculum documents where even in 2005, schools were still encouraged to have a school farm, very much in alignment with the original ESR policy. Nyerere stated, "every school should also be a farm; that the school community should consist of people who are both teachers and farmers, and pupils and farmers" (Nyerere, 1967, in Lema et al., 2004, p. 81), and he encouraged pupils, from an early age, to learn by doing and take responsibility on the communal farm. It is worth bearing in mind that ESR was written in alignment with the 'villagisation' agenda and recognition that

Tanzania required specifically rural development (Baganda, 2016). The rapid urbanisation of the country suggests that uncritical transfer of these historical policies should be treated similarly to that of other 'foreign' policies or ones from starkly contrasting contexts. In the 2019 curriculum, self-reliance has been reframed as income-generating and entrepreneurialism (MoEST, 2019), more associated with a competitive capitalist framework than a socialist one. 'Agriculture', for example, is mentioned only once, whilst 'income generation' and 'entrepreneurship' are much more common.

Baganda's (2016) comprehensive account of *The Trajectory of Universal Primary Education and Educational Decentralisation in Tanzania 1961-2015: A Nyererean Perspective* sheds light on how to understand competing and conflicting narratives that may appear in tension, especially around the use of key terms or concepts across time. He explains:

> While self-reliance has continued to be a common phenomenon in Tanzanian educational policy, its presence could be interpreted in a myriad of ways. On the one hand it may reflect continuity or the remnants of Nyererean policies of African socialism, persisting in the dominant contemporary context of neoliberalism. On the other hand, the notion of self-sufficiency has been applied to promote human capital, which remains one of the key aspects of the capitalist model of national development. This is an example of a common or shared idea across differing political systems/ideologies (Baganda, 2016, p. 290).

It has also been suggested that rather than driving economic or social development, *Ujamaa* and its associated discourses are now used as a set of moral principles, a "moral toolbox" that can be used to suit a variety of purposes and agendas (Fouéré, 2014, p. 6). Others have suggested that ESR stood on weak foundations of 'traditional' cooperative learning since many Tanzanian tribal communities were hierarchical and learning was done via unquestioned transmission of knowledge from respected elders (see Sakata et al., 2021). Perhaps, like pedagogy, ESR can be seen as a discourse and a practice and its interpretation is tied up with the other trajectories it is interacting with. 'Self-reliance', just as for LCE in Chapter 3, needs to be interpreted in its temporal and spatial context, without any, "prefigured 'cultural models' or reified ideological platforms" (Sobe, 2016, p. 157).

A final important aspect of ESR that still resonates in the current curriculum concerns the role and involvement of parents and community in schooling. ESR stated:

> The pupils must remain an integral part of the family (or community) economic unit. The children must be made part of the community by having responsibilities to the community, and having the community involved in school activities (Nyerere, 1967, in Lema et al., 2004, p. 84).

Under ESR, schools were seen as belonging to the village rather than to the government; it was often the case that the community had physically built the school so ownership and responsibility was in-built (Baganda, 2016). *Ujamaa* in general was designed to encourage local democratic participation, and village councils and SMCs have long been involved in local education decision-making. However, as we saw in the section on FBE this involvement shifts over time. Though community and parental participation is still seen as "crucial", (alongside public-private partnerships) the focus is now on parents monitoring their children's academic performance and helping improve the school infrastructure (MoEST, 2019, p. 9).

A brief note on colonial systems and missionary legacies

As we saw above, it is not possible to neatly separate the period since independence from the colonial and pre-colonial times. The examination system, for example, spans colonial and 'post-colonial' times. Likewise, "the history of corporal punishment in Africa is entwined with the history of colonialism on the continent" (Crocker and Pete, 2009, p. 45). The legacy of foreign missionaries is another trajectory which can still be seen to contribute to the production of school spaces today. Vavrus's study of the Kilimanjaro region of Tanzania looked at a small area but one with a reputation for educational achievement which has been traced back to the influence of Christian missionaries in the 1800s (Vavrus, 2015). Similarly, in Bukoba, the town of interest in this study, academic performance of some schools is strongly associate with their Christian missionary histories. An account of the history of the church in Bukoba reported that a visiting UK cardinal in 1929 encouraged Roman Catholic missionaries to concentrate their resources on schools:

> Where it is impossible for you to carry on both the immediate task of evangelisation and your educational work, neglect your churches in order to perfect your schools (Sundkler, 1974).

This directive was partly because schooling was regarded as 'bait' to entice children, and as a result, their families into Christianity, not only as an alternative to the perceived 'heathen' ways of the local population, but also in competition with the Quaranic schools that had been spreading across Tanzania since the 8th century (Mushi, 2009). Kagera, the region where Bukoba is, was seen a key battle zone for converts (Mushi, 2009). Again, the 'simultaneity of stories-so-far' (Massey, 2005) is striking. More historical detail specific to Bukoba will be included in Chapter 7.

A snapshot of schools and people

This section will give some descriptive detail of the national picture of schooling so that the local and school-level data specific to this study given in the following chapters can be seen in relation to this.

Tanzanian government primary schools have a national uniformity in appearance and daily routines. The description below from Barrett could be used for many of the schools I have visited:

> The school buildings consist of three single storey classroom blocks topped with corrugated iron, enclosing three sides of a central courtyard of decorative flowerbeds. … the orderly lines of white-painted stones demarcating footpaths give the impression of a well-tended compound. The parade ground, where the whole school assembles, is a bare area of swept sand in front of the classrooms (Barrett, 2005b, p. 115).

However, when statistics and, in particular, national averages are added, the picture of what happens in those classroom and parade grounds changes as there are stark regional disparities. The Tanzanian government is aiming for a pupil-teacher ratio (PTR) of 1:45, with an interim target of 1:60 (MoEST, 2018). According to the government statistics, the national average is 1:61 but with the highest at 1:102. However, the average pupil-classroom ratio is higher than the PTR, at 1:75, showing that there is both a teacher and classroom shortage (PO-RALG, 2020). As enrolment continues to increase with FBE, building and recruitment will struggle to catch up.

Table 7 below shows the pupil enrolment figures for 2016-2020. Interestingly, though the government has partially attributed the increase in enrolment to FBE, the increase in non-government schools has increased by 56% compared to only 25% at government school, showing an interesting correlation between FBE and private school enrolment.

Table 7 - Standard I-VII Enrolment of Pupils in Government and Non-Government Schools, 2016-2020. Source: PO-RALG (2020)

Year	2016	2017	2018	2019	2020
Government	8,341,611	8,969,110	9,717,309	10,174,237	10,460,785
Non-Govt	297,591	348,681	396,408	431,193	465,111
Primary Total	**8,639,202**	**9,317,791**	**10,111,671**	**10,605,430**	**10,925,896**

Girls marginally outnumber boys throughout primary and lower secondary stages (50.2% girls to 49.8% boys at primary; 52.5% girls to 47.5% boys in Form 1 – 4) but the trend reverses in upper secondary with 57% boys to 43% girls (PO-RALG, 2020).

99% of primary teachers are qualified but the vast majority (75%) are at the 'Grade A' or certificate level, meaning that they have completed four years of secondary school and a two-year pre-service training programme. Around 16% have the diploma which is taken after Form 6 (PO-RALG, 2020). 8% have a bachelor's degree. There is not space to go into detailed aspects of teachers' identity, knowledge, skills and roles here but one aspect worth noting is the two domains of perceived responsibilities: *kitaaluma,* the academic domain, and *malezi,* the guardianship or caring domain, strongly tied up with community and the collective upbringing of children (Barrett, 2005b). These two domains constitute a "dichotomy of accountability" (Barrett, 2005b, p. 195) which frames many of their practices and decision-making. This will be returned to in Chapters 9 and 10.

Urban schools are very often depicted in research evidence as better off than their rural counterparts and there is some evidence to support the idea of the 'urban advantage' in Tanzanian education, with high level data showing that

there are likely to be more teachers, and better qualified teachers in urban neighbourhoods (Luschei and Chudgar, 2015). However, it has also been shown that urban teachers are more likely to be absent and even when in school, teach for fewer hours (Joshi and Gaddis, 2015). This is alarming given that on average, nationally, teacher absenteeism is at 25% (Uwezo, 2017). Reports of violence in urban schools (UNICEF, 2012) as well as over-crowding, as urban schools have limited room to expand or add facilities (Riggio, 2012), help build the case that the 'urban advantage' is not realised in many urban schools.

The recent Uwezo report (2019) investigated parents' participation in schooling and children's learning outcomes at a district level. Nationally, 60% of parents claimed to have read a book with their child, 20% had recently checked their exercise book and 50% had visited their child's teacher to discuss progress. Bukuba Municipal, where this study is set, sits above these national averages with, for example, 74% of parents visiting schools. Similarly, the pass rate is above the national average in Bukoba (Uwezo, 2019).

Learning and pedagogies in Tanzania

In Tanzania, primary education has been relatively heavily researched, especially in relation to programmes under the frameworks of EFA, the MDGs and the SDGs and a significant number of studies have included a focus on pedagogy in some form. However, of importance for this study, the majority of this research has focused on challenges for rural schools (e.g. Ngalawa et al., 2015, Roberts et al., 2015) or on the contested issue of LOIs (e.g. Wedin, 2010, Brock-Utne and Holmarsdottir, 2004). In addition, whilst there is a valuable body of work offering insight into primary teachers' identity, capabilities, beliefs and practices (e.g. Westbrook and Croft, 2015, Tao, 2013, Hardman et al., 2012, Barrett, 2008), representative of the wider field, there is a scarcity of work capturing children's perspectives or experiences.

Assessing learning outcomes

The main sources of data on primary children's learning are the annual PSLE results and the independent citizen-based Uwezo assessment which aims to monitor and establish the status of children's "actual learning outcomes in

literacy and numeracy" (Uwezo, 2019, p. 12). The story told by the PSLE results is one of significant improvement. The pass rate for PSLE has increased dramatically between 2009 and 2019, from 49% to 81.5% (PO-RALG, 2020). Although in 2019, when 81.5% passed, only 77% joined Form 1. However, this is the highest percentage to join secondary school since records began in 1961 (PO-RALG, 2020). In addition to the criticism of the PSLE already mentioned, it has also been suggested that the focus of the examination has narrowed and the style of test items has changed from longer, essay-style questions to largely multiple choice making it easier to pass (Roberts, 2015). In addition, the results from Uwezo (2019) tell a different story.

For several years now the literacy, numeracy and English learning outcomes for primary pupils have been a cause for concern. The most recent 2019 Uwezo report shows some progress in Kiswahili literacy with the percentage of Standard 3 pupils who were able to read a Standard 2 level short story in Kiswahili doubling between 2011 and 2017 (from 29% to 62%) (Uwezo, 2019). Although this is a marked improvement, the report also shows that by the end of primary school, at Standard 7, there are 14% of children who are unable to read a Standard 2 story (Uwezo, 2019). Numeracy outcomes have fluctuated. The percentage of Std 7 pupils who could carry out Std 2 level subtraction fell from 88% to 80% between 2014 and 2017, although a 9% improvement was seen in Sd 3 pupils over the same period (Uwezo, 2019). It seems possible that some of this progress could be attributed to the new focus on foundational literacy and numeracy skills in the early years of the new primary curriculum, although without strengthened alignment between school and teacher education curricula, progress will be limited (Akyeampong et al., 2013). The results in English, however, continue to be low, and more worrying considering the transition to EMI in secondary education, declining. Whereas 86% of primary school leavers were able to read a Standard 2 story in Kiswahili, only 41% were able to read an equivalent story in English; this is down from 56% in 2014 (Uwezo, 2019). This means that more than half of the pupils leaving government primary schools and starting their secondary education, across all subjects, in English, are not yet reading at Standard 2 level in English. There are a number of other familiar trends. Overall, urban pupils outperform rural (70%:59%) and private-school pupils outperform government (78%:62%) (Uwezo, 2019).

Despite the worrying Uwezo results, the success story of the increased PSLE pass rates continues to be told, and the examination continues to exert a powerful influence over teaching practices even though teachers, parents and students no longer believe that successful progression through the stages of basic education will guarantee them stability or secure employment (Vavrus, 2021, Roberts, 2015). Vavrus brilliantly describes this social effect by demonstrating how the examination trajectories intermingle with a diverse multiple others to produce spaces of uncertainty.

> [Participants] agreed, however, that the education system in the country was failing many young people, who struggled to find decent jobs after Standard 7 or Form 4. These parents and grandparents concurred that *kuhakikisha maisha*, the effort to make life certain, was becoming a more distant dream as salaried employment grows increasingly scarce, agriculture becomes more difficult due to climate change and land scarcity, and political tensions mount under the country's authoritarian president (Vavrus, 2021, p. 301).

For this bleak scenario, 'future-proof learning' skills (Kirschner and Stoyanov, 2020), which go far beyond recall of factual information, seem more important than ever.

Relationships, learning and corporal punishment

The use of corporal punishment is allowed in Tanzanian schools, and its use is widespread; in a national study, 89% of school children reported experiencing physical violence at school, most commonly the cane (HakiElimu, 2020). Rural teachers were twice as likely to report using the cane than urban teachers, 37% and 17% respectively (HakiElimu, 2020). The regulations state that only the head teacher, or a teacher specifically authorised by the head teacher can use corporal punishment, approval must be given on a case-by-case basis, it should only be used for serious misconduct, a maximum of four lashes can be given and the details of every incident must be recorded and signed by the head teacher (Mwananchi.co.tz, 2018). However, it is acknowledged as a common practice and these regulations are widely flaunted (Sakata et al., 2021, Vavrus, 2021, Sakata, 2019, Tao, 2013). Tao (2013) investigated teachers' use of corporal punishment through a capabilities lens, finding that where teachers and pupils were in 'cooperative conflict', for example pupils not listening while the teacher was trying to present information to fulfil their lesson objectives, then using the

cane was the teacher's way of finding resolution, of restoring cooperation, in the face of a lack of preventive techniques. Likewise, if pupils' behaviour was constraining the teachers' capability to follow protocol, e.g. distracted pupils hampering completion of cleaning duties, or low performance affecting the school academic ranking, then the cane, as a punitive technique, is readily used (Tao, 2013). From a teachers' perspective, it is also used as way of asserting authority, regaining respect and avoiding loss of face (Tao, 2013) and in response to the "intense frustration" (Vavrus, 2021, p. 153) that can come from the challenging teaching conditions in many Tanzanian schools (see also Kaltenbach et al., 2018). Harsh punishment can also be seen as part of teachers' *malezi* role (Barrett, 2005b). "Socializing children into respectable members of society" means that sometimes their behaviour needs to be 'corrected' (Barrett, 2005a, p. 52). Although corporal punishment is very common, not all teachers want to use it and there is awareness of how damaging it can be for teacher-pupil relationships (Kaltenbach et al., 2018, Roberts, 2015, Tao, 2013).

Learning across spaces

In chapter 2, I presented the paradox of schools being sites for gaining 'decontextualised knowledge' whilst themselves being very specific contexts (Lave and Wenger, 1991) and explored various ways that schools connect, fail to connect and should connect with home and community spaces. A small number of studies have explored the harmful disconnection between Tanzanian children's in- and out-of- school lives, with Maganda's assertion that "many students don't see their lives in school" (2016, p. 54) summing up the problem succinctly. For example, for Maasai children formal and traditional education offer "conflicting forms of knowledge that are conveyed in widely different fashions" (Bonini, 2006, p. 379) and for children where agriculture remains the focus of village life, "subjects taught at school are related to national examinations and are poorly linked to community experiences, everyday life and local realities" (Ahmad et al., 2016, p. 301). The devaluing or stigmatising of local languages is another way that local knowledge is kept out of the school (Maganda, 2016, Wedin, 2005). However, little has been said about how these disconnections play out in urban contexts.

Pedagogies

There are several detailed accounts of pedagogical practices in Tanzanian primary classrooms, produced from different research designs: ethnography (e.g. Roberts, 2015, Barrett, 2007, 2008, Wedin, 2005, 2010), or 'ethnographic case studies' (Tao, 2013), and mixed methods (e.g. Sakata, 2019, Hardman et al., 2012). Overall, there is consensus of the central characteristics of classroom practices, summed up well here by Vavrus's account of what teachers regard as 'good teaching', and integrating pedagogy as ideas into pedagogical practices (see Alexander, 2008 in Chapter 3):

> For many … good teaching meant transferring a body of knowledge established by "experts" from teacher to students. Knowledge was produced elsewhere, by others, and transmitted from adults to youth. The more efficient and expeditious the transfer, the more knowledge from the syllabus could be "covered," helping to ensure students' success on regional and national examinations (Vavrus, 2021, p. 264).

Here, ideas of knowledge production and learning are tied tightly up with pedagogies, and assessment trajectories reinforce practices. The 'efficient and expeditious' transfer is done through heavily teacher-directed lessons. Hardman et al. (2012) found that 55% of observed lessons were taken up with teacher-directed activities, such as explanation and whole-class questioning (97% of teachers' questions were closed, requiring short answers) and 25% with individual seat work. Reading is most often reading aloud rather than silent individual reading (Wedin, 2010), and writing tasks are limited to short answers (Roberts, 2015, Wedin, 2010). In their study, Sakata et al. (2021) identified "the virtual absence of LCP-related activities or interactions" describing classroom practices as: "typified by one-way lecturing, close-ended questions and writing exercises". By framing their study as an investigation of LCE, and concluding that "observations reveal the prevalence of a teacher-centred manner of classroom interactions" (Sakata et al., 2021, p. 15), the authors seem to be diagnosing a failure of LCE implementation. However, this seems to be falling into the common trap of polarising pedagogies (Barrett, 2007), and although similar classroom practices are reported in other studies, there are other non-dichotomising ways of framing observed and recommended pedagogies which may be more useful. Barrett (2007) identifies a "distinctly Tanzanian pedagogic tradition" (2007, p. 274) which includes aspects of Bernstein's performance and

competence modes in a "pedagogic palette" (Barrett, 2007, p. 288), and notes that pedagogical practices differ across subjects with Kiswahili offering the most flexibility.

In terms of improving pedagogies, approaches that combine 'traditional', local approaches whilst increasing cognitive demand and participation are called for (Hardman et al., 2015, Roberts et al., 2015), but more importantly, there needs to be 'systemic realignment' across teacher education, curriculum and examinations to support any pedagogical changes (Vavrus et al., 2011). Further, as we saw in Chapter 3, pedagogical practices cannot be treated separately from 'pedagogy as ideas' (Alexander, 2008) and the epistemological and system-related issues in Vavrus's quote about 'good teaching' would also need to be addressed. As well as key issues of teacher-pupil relations mentioned previously, Hardman et al. (2015) prioritise teachers seeing teaching as intrinsically about communication and Gove et al. (2017) claim that teachers' low expectations of what their pupils can achieve need to be overcome.

Though the challenges facing teachers indicated in this chapter may seem overwhelming, there are also several voices, to which I add mine, that refuse to fall into critical, deficit discourses. They recognise that overall, teachers work hard in challenging circumstances and that change starts when we fully understand those circumstances (e.g. Gove et al., 2017, Tao, 2013). An intervention in one urban school found, "there is a continued sense of commitment and resilience by the teachers to help and to educate their children" (Fentiman et al., 2013, p. 11). In addition, to tackle deficit discourses, we need more examples of good practices in challenging circumstances (Pryor et al., 2012).

Learning and pedagogies: children's perspectives?

Reflecting the wider literature, there are very few studies that include primary children's perspectives on learning or their school experience in Tanzania. Adamson's (2020b) recent work studying secondary students' experience of negotiating languages and learning at school offered rich insight into their approaches to study, the roles of emotions and the conflicting trajectories students face. A similar study at primary level would be a valuable addition to

the literature. There are two studies, however, that provide some insight into primary children's perspectives by including pupils as participants: one focuses on LCP (Sakata, 2019, Sakata et al., 2021), and the other on the effects of high-stakes testing on teaching and learning (Roberts, 2015).

Sakata's studies framed pedagogy as co-constructed (Tabulawa, 2013) and explored pupils' experiences with LCP (Sakata et al., 2021). Through short, one-off focus group discussions (FGD) Sakata et al. (2021) found that pupils' most preferred learning activities could be classified as 'learner-centred', though several pupils conceded that opportunities for such activities were rare. Observations revealed a "virtual absence of LCP-related practices" (Sakata et al., 2021, p. 1). A key characteristic of pupil-teacher relations was fear of corporal punishment. Overall, the authors see pupils and teachers as "both agents in collaboration" (Sakata et al., 2021), however, it is not clear how they reconcile the place of fear and the power disparities that come with corporal punishment in this framing, nor how the difference between pupils' preferred pedagogy and the pedagogy they receive can play into a co-construction narrative.

Roberts' study (2015) also uses FGDs with primary pupils. Unfortunately, the write-up of the results focuses much more on adults' perspectives and though the inclusion of parents is a distinct contribution, insights are limited into how the high-stakes testing affects pupils' learning. The one area where interesting insight is provided is what happens in the classroom when the teacher is not there. Studies have shown that it is common for the teacher to leave the classroom when the oral presentation has been delivered and an exercise has been set (Sakata et al., 2021, Barrett, 2007, Barrett, 2005b). In Roberts' study we discover what happens next:

> *"Some students study and some just sit there."*
> *"It is difficult to study when a teacher is not there. Many of us just sit idle" (two pupils cited in Roberts, 2015, p. 36).*

Some pupils did see this as a chance to develop self-reliance and good preparation for secondary schooling (Roberts, 2015) but overall, it seems like a wasted opportunity.

Both the studies reviewed here make valuable contributions but the sole use of FGDs to capture primary pupils' perceptions and experiences has limited the insight that could be gained. I believe that the methods for this study, laid out in Chapter 6, provide multiple opportunities and channels for children to express their ideas.

Conclusion

This chapter has endeavoured to contain and make sense of the explosion of issues that sit under the deceptive title of *Tanzania: education, learning and pedagogy.* The trajectories identified here stretch back in time and across continents. Past legacies build into current policy trajectories such as curriculum and examinations and testing, and inspections, which in turn contribute to the production of classroom spaces.

Chapter 6. Research methodology

Introduction

> Too many researchers and policy makers have lost sight of the fact that [learning and teaching] are highly contextualized forms of social practice. The principal actors are children, each one unique and delightfully unpredictable, and teachers, who recalibrate their practice to meet the needs of their students and appropriate policy as they see fit (Vavrus, 2021, p. 21).

This quote from Vavrus's ethnographic memoir neatly introduces the key considerations of this chapter – how to design and carry out research which can capture all this contextualised complexity, keeping children and teachers central as principal actors. The study of learning, and of perceptions and experiences of learning in Tanzania, have been established as a complex social phenomenon over the previous chapters. The breadth and complexity of the multiple issues inherent to an understanding of learning and pedagogy demand a methodological approach that is able to capture detail and nuance and can hold together experiences and ideas across multiple scales, from the individual and local to the national and international. Creativity and creative research methods, in a broad sense, can help to avoid oversimplified ideas or binary thinking (Kara, 2015) and to see familiar phenomena in new ways, and this is a thread that runs through this chapter, as is the foregrounding of children as valuable contributors to knowledge production.

This chapter will start by presenting the Comparative Case Study research design, justifying its selection and explaining the adapted design in this study. Section two looks at situated knowledge and its implications for the methodology. The third section lays out the case study selection processes. The five main research methods are justified and described in the fourth section. Then, issues of both procedural ethics and ethics in practice are addressed. In section six, the four stages of analysis are presented, and the final section outlines some of the limitations and reflections on methodology and methods.

Research design: Comparative Case Study

Why comparative case study?

There is a range of epistemological and methodological approaches to case study but overall, it is recognised as a research design that is well suited to dealing with complexity (Yin, 2018, Bartlett and Vavrus, 2017c, Bryman, 2015, Flyvbjerg, 2006). Traditionally seen as a counter-balance to 'decontextualised' laboratory-based research, one of the defining characteristics of case study is its foregrounding of context and its 'closeness' to reality (Yin, 2018, Bartlett and Vavrus, 2017c, Flyvbjerg, 2006). This, in turn, demands rich, in-depth, detailed accounts of the phenomenon of interest (Yin, 2018, Vennesson, 2008, Flyvbjerg, 2006). The resulting case studies "celebrate processes and the particular more than they do the fixed and the general" (Schweisfurth, 1999, p. 332), making no claims to be representative or presenting generalised rules of 'what works'. Case studies help us develop a "nuanced view of reality" (Flyvbjerg, 2006, p. 223) which is much more useful for this study than one that reduces human behaviour to simple rule-based acts, separated from their context. Their lack of generalisability has been seen as a weakness, but this only holds if the aim is generalisability. As Flyvjberg points out, "formal generalization is only one of many ways by which people gain and accumulate knowledge" (2006, p. 227). In addition, in education, and pedagogy research in particular, Alexander (2000) flags the unhelpfulness of polarising research claims of particularity and generalisability since it ignores the uniformity that inevitably exists within a state education system. Acknowledging the shared history and the often centralised and standardised approaches to teacher education, curriculum, examinations and school inspections, he says:

> By the time we reach the classroom we have a chemistry in which the common and the predictable mingle with, qualify and constrain the unique, and set readily observable limits on pedagogical variability, even granted the self-evident fact that each teacher, each child and each class of teacher and children in combination is different (Alexander, 2000, p. 268).

This description conjures an image of Massey's intermingling trajectories, highlighting the bundling of the local and national together in the classroom. Therefore, rather than testing case studies against an irrelevant criteria of what

they can prove, or what rules can be extrapolated, we should instead ask, what we can learn from them, and seek, "new insights and critical perspectives" and "increased awareness and understanding" (Crossley and Vulliamy (1984) in Schweisfurth, 1999, p. 337) that, in turn, will help us move forward through generating new theories and principles. In Bartlett and Vavrus's Comparative Case Study (CCS) approach, for example "they aim for analytical generalization through theory" (2017c, p. 117).

There is already a valuable body of case study literature in education in Sub-Saharan Africa (SSA), covering a range of issues relevant to this study, that I hope to contribute to (e.g. Pryor, 2005, O'Sullivan, 2004, Tabulawa, 2004). Others highlight the value of comparison in case study, and the different ways that the logic of comparison can be used effectively (e.g. Sakata, 2019, Barrett, 2005b, Schweisfurth, 2000). The basic premise of the benefit of comparison can be seen simply that, "we can understand social phenomena better when they are compared in relation to two or more meaningfully contrasting cases or situations" (Bryman, 2015, p. 65). Sakata's study is an example of a subnational or intranational comparison which are in the minority but have much to offer (Phillips and Schweisfurth, 2014, Snyder, 2001), especially when recognising the risks of "methodological nationalism" (Dale and Robertson, 2009, p. 1114). Her research design is based on Bartlett and Vavrus's CCS (2017c, 2017b) approach which uses two different 'logics of comparison': the commonly used compare and contrast and a "processual logic" (Bartlett and Vavrus, 2017b, p. 8) which involves tracing phenomena across individuals, sites, and time periods. It is this research design that I draw on heavily in this study.

The Comparative Case Study and Massey's space

In order to combine their two logics of comparison in their CCS design, Bartlett and Vavrus (2017c) recommend that comparison should be done across three axes: the horizontal, the vertical, and the transversal, to shed light on the social forces and social factors at play in the study of any phenomenon. Their approach draws on Massey's conceptualisation of space as socially produced and the use of both in this study, brings together the theoretical and the methodological.

The horizontal axis is the most familiar from other models of comparative case study, comparing how the phenomenon of interest manifests in different locations, but here highlighting that these locations are intricately connected and socially produced. Their vertical axis investigates phenomena at and across different scales, like Massey (2005), recognizing the interaction between scales from global to local and individual. Their transversal axis adds a historical perspective and recognizes that the social phenomena we see now have historical roots and are not complete or fixed but rather we are looking at them at the point they are at now, as Massey (2005) would see it, the 'story-so-far'. In this aspect they step away from 'traditional' case study approaches like Yin's (2018) which recommends avoiding study of the unobservable 'dead past' when investigating contemporary phenomena. Instead, they see the importance of historically situating the case as it "reminds us to think about time and space as inextricably interconnected" (Bartlett and Vavrus, 2017c).

This shared view between Bartlett and Vavrus and Massey which recognises the interconnectedness of space and time, highlights a key point of intersection across theoretical and methodological approaches in the fields of geography and education which allows context to be seen in all its breadth and complexity and for cases not to be seen as bounded 'containers'. Just as space is not a container for action but is produced by actions and interactions, so too cases, are not containers of the studied phenomena and should not essentialise the people and actions they attempt to represent. Bartlett and Vavrus highlight that, "fields are emergent, and fieldwork is mutable" (2017c, p. 47) and warn against attempts to 'bound' cases from the start, instead encouraging an emergent and iterative approach throughout.

It is in relation to the horizontal axis where ideas of boundedness tend to be most prevalent and problematic in wider discussions of case study as a research design. As seen earlier, it is generally acknowledged that case study prioritises context in some way (Bryman, 2015, Flyvbjerg, 2006). The CCS model, however, does not see context as static and purely 'the setting' but rather, they maintain that context is made; it is dynamic, includes social interactions, is influenced by time and cannot be bounded (Bartlett and Vavrus, 2017b). Massey's notion of the social production of space is most explicitly cited in discussion here as Bartlett

and Vavrus see horizontal comparison as a way to explore "the way that similar phenomena unfold in distinct, socially-produced locations that are connected in multiple and complex ways"(Bartlett and Vavrus, 2017c, p. 51). In this study, looking at perceptions and experiences of learning, 'unfolding' across school, home and neighbourhood, and considering Alexander's assertion that, "culture does not stop at the school gate" (2000, p. 29-30), it is clear that 'bounding' would be incredibly unhelpful; from the outset, recognition of porous boundaries is key. Places, and space, should be seen as "open and porous networks of social relations" (Massey, 1994, p. 120), stretching across 'local' places but also stretching outwards and challenging the unhelpful local / global binary, calling for a "politics of connectivity" (Massey, 2005, p. 180).

One area where there may be some misalignment or conflict between Massey and Bartlett and Vavrus, is in the terminology and approach to representation attached to their models. As I have mentioned above, Massey's concept of space as socially produced and interrelational informs Bartlett and Vavrus's whole approach but the horizontal axis of their model in particular. However, by separating out the three axes, by having a distinct focus on horizontality, represented as linked to but not interwoven with the other axes would, I feel, be problematic for Massey. As with any complex social theory or concept, creating a representative model and attempting visual representation of that model is challenging (see discussion of Tikly (2015) and Alexander's (2008) models in chapters 2 and 3).

Likewise, Massey explains the limits of horizontal representation on conceptualising space by saying that it fails to acknowledge the "full contemporaneous coexistence and becoming" (Massey, 2005), emphasising again how embedded the temporal is in the spatial. Though Bartlett and Vavrus concede that their three axes are "mutually imbricated" (Bartlett and Vavrus, 2017a, p. 913), the term 'axes' itself implies separation and factors pulling in different directions, and it does not fully communicate the complexity of the relationships.

Their visual representation in Figure 19, though still necessarily oversimplifying the relationships, does, compensate by showing the transversal axis overlaid on

the horizontal and vertical axes, suggesting a simultaneity more in alignment with Massey's approach.

Figure 19 - Example CCS Approach to LCP in Tanzania. Source: Bartlett and Vavrus (2017a)

However, their vertical axis positions 'the global' as 'up there' which Massey contests (2005). Further, Massey conceives that each horizontal layer would have to represent multiple, not just overlapping, but "intertwined open-ended trajectories" (Massey, 2005, p.113).

I like to imagine that Massey might appreciate my model, seen in Chapter 4 and adapted below (Figure 20). Each coloured line is one trajectory, one 'story-so-far', with the transversal, change over time, inherent in it. The different colours represent the different scales so the international, national and local on Bartlett and Vavrus's vertical axis are bundled together. The school sites, A and B, are specific places, with distinct bundles of trajectories producing them.
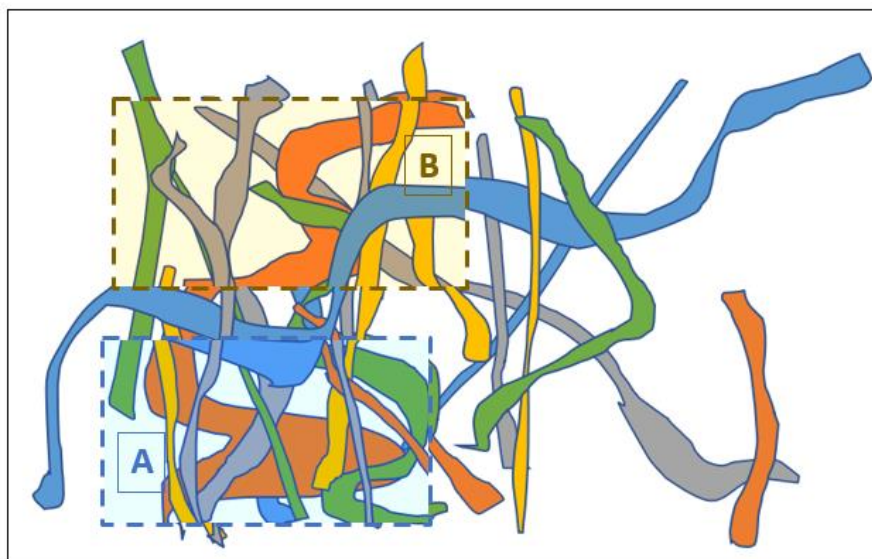
Figure 20 – Adapted CCS approach based on my interpretation of Massey's space

These could represent any classroom 'actor': pupils, teachers, curriculum, the room itself, the land the room is built on etc. They are coeval, intertwined, open-ended trajectories.

However, despite the disparities in modelling, Massey's conceptualisation of space and Bartlett and Vavrus' CCS complement each other and the inclusion of both in this study provide strong theoretical and methodological foundations. Vavrus highlights the contribution that this kind of approach can make:

> Spatial and temporal coevalness creates the possibility for the production of a different sort of knowledge from the standardized, replicable "what works" approach prevalent in education, development, and other fields today (Vavrus, 2021, p. 254).

What does a Comparative Case Study look like here?

In the following sections, I will outline the different ways in which the components of three CCS axes are incorporated into the research process of this study, though ultimately, they are interwoven.

Horizontal elements

Two schools were selected as 'hubs' of cases or "fuzzy fields" (Bartlett and Vavrus, 2017c, p. 115), allowing me to explore classrooms, teachers, pupils, their homes and neighbourhoods and allow 'fuzzy' cases to be 'carved out' (Vennesson, 2008) through the data generation, analysis and writing processes (see *Selection* section). Comparison across 'fuzzy cases' takes place in multiple directions including: comparison of pupils in and across schools in *Three Pupils' Stories-so-far* (see Chapter 8), comparison of learning in and out of school, and comparison of learning across two schools. Most of this comparison is seen in the 'empirical' chapters, 8,9 and 10 but there are also elements in *Chapter 7, The Bukoba cases* drawing on secondary data.

Vertical elements

In the CCS model the vertical axis is particularly linked to policy and the socio-political context. In this study, the scales of the vertical axis are seen throughout this thesis. Chapters 2 and 3 presented elements of the global discourses of learning and pedagogy that constitute trajectories producing

learning spaces in Bukoba. In Chapter 5, the Tanzanian policy landscape is laid out so that the key trajectories there can be traced into the empirical chapters, bringing the national and local together. Data generation activities were conducted with participants operating at different scales, for example, from the classroom teacher and pupils to the DEO, and they shared their own ideas about policy instruments and the socio-political context. In addition to the policy focus, comparison across children's and adults' perceptions and experiences forms an important part of the analysis.

Transversal elements

"The horizontal and the vertical should be considered historically … hence the need for the third axis" (Bartlett and Vavrus, 2017c, p. 14). This is a reminder of how integral the temporal is to the spatial, and of Massey's 'space-time' (2005). Selected historical details are included in literature review and Tanzania, and Bukoba chapters, although capturing the richness and complexity of the multiple histories from multiple perspectives is a challenge beyond the scope of this thesis. Since this was not a longitudinal study, questions of change were included in data generation activities to capture participants' temporal perspectives. Reminders that space is continually "under construction" (Massey, 2005, p.9), pepper this thesis, as a prompt to me and the reader to see this thesis as representing stories-so-far, leaving room for many different future possibilities for Tanzania and Bukoba.

Bartlett and Vavrus (2017c) recognise that both the emergent nature of their approach and the demands on the researcher of paying sufficient attention to all three axes makes CCS an ambitious approach. I agree, however, once the theoretical stance laid out in Chapter 4 has been taken, it is not an option to ignore any axis; they are not just "mutually imbricated" (Bartlett and Vavrus, 2017a, p. 913) but totally and intricately intertwined. Rather than see this as a constraint, I relish the challenge to understand the *throwntogetherness* of the learning spaces in this study.

Situated knowledge

Epistemology

In Chapter 2, we explored how both learning and knowledge are situated (Katz, 2004, Lave and Wenger, 1991, Brown et al., 1989) and this is a key concern for the methodology of this study as well as the focus on education and learning.

> Qualitative research is about meaning and meaning-making, and viewing these as always context-bound, positioned and situated, and qualitative data analysis is about telling 'stories', about interpreting, and creating, not discovering and finding the 'truth' that is either 'out there' and findable from, or buried deep within, the data (Braun and Clarke, 2019, p. 591).

Aligned with the stance quoted above, this study is framed from a constructivist-interpretive standpoint, recognising that multiple perspectives exist across individuals and organisations in different social and cultural contexts, and meaning is co-constructed depending on who makes it, where (Denzin and Lincoln, 2017). Importantly, the research participants' accounts will form the basis and starting point of the study which will then take an interpretative, reflexive approach, endeavouring to produce a rich, credible representation of their perceptions and experiences (Ormston et al., 2014), whilst acknowledging myself as a key instrument in the interpretation. With me as a non-Tanzanian researcher, this diversity of perspectives, values and experiences will be central to the new knowledge actively co-constructed in the study (Creswell and Poth, 2018, Spencer et al., 2014a).

The decisions made in this study, including the selection of theories and research design, should be consistent with the epistemological stance outlined above. For example, rather than the term 'data collection' which is suggestive of something that already exists and can be simply gathered, I use the term 'data generation' to show that the data are produced through interactions.

Reflexivity and positionality

If "the sort of knowledge made depends on who its makers are" (Rose, 1997, p. 306-307) then qualitative research demands scrutiny of 'the makers'. The researcher's positionality stands out here; she is not an empty vessel (Yeo et al.,

2014) but rather is the main instrument (Kane, 1995). To this end, I aim to be reflexive about my role in the research process and to recognise the different ways that I have influenced it. When thinking about positionality during the data generation period, I find it helpful to think of Massey's idea that, "if space is … a product of relations, then 'visiting' is a practice of engagement, an encounter" (Massey, 2005, p. 91). In this way, I can see that I am altering space by being here.

The different ways that I alter space are not ticked off by listing "impersonal externally defined categories" (Moser, 2008, p. 385) such as gender (female), age (47) and nationality (Scottish), though there are significant implications of each of these. Further, similar to the futility of trying to enumerate every trajectory producing space (Massey, 2005), there is little point in trying to pin down here everything about me that could or did impact the study. Like trajectories, positionality changes over time. For example, one aspect of my positionality, tied up with colonialism and related trajectories, is my whiteness (see Britton (2020) for more on this) and the fact I come from a recognised donor country (Jakobsen, 2012). In an early discussion with the DEO in Bukoba, he reassured me that I would be warmly welcomed by schools and participants here, partly because of my whiteness. He contrasted this with his experience as a black man doing his Masters in Europe. My fieldnotes recorded his comments: "They'll receive me warmly cos I look like Jesus! When he was in Europe, most people thought he was a refugee" (Field notes, 30.11.2019). He was correct; I was welcomed very warmly, however, my whiteness and 'western-ness' shifted in the final weeks of fieldwork in February and March 2019 as COVID-19 stories and information began to spread. The occasional calls of *Mzungu* (white foreigner), as I passed through town on the back of a *pikipiki,* changed to *"Corona",* as the spread of the virus was associated with foreign travellers. Race and nationality can play out in different ways and it is seldom as simple as insider/outsider (Milligan, 2016).

Adults and children will also respond differently to aspects of the researcher's positionality. I related strongly to this account of a male U.S. researcher conducting an ethnographic study with young children in Italy:

> [His] very "foreignness" was central to his participant status. His
> limited competencies in the Italian language and his lack of
> knowledge of the workings of the school led the children to see him as
> an "incompetent adult" who they could take under their wings to
> show the ropes (Corsaro and Molinari, 2017, p. 12).

There were several instances during my study where children showed leadership
and took charge to guide and help me, the 'incompetent adult'. At other times I
was able to use this dynamic productively, for example in children teaching me
Kiswahili as part of data generation.

I highlight these few aspects of positionality here but it is not this depiction that
counts, it is the ongoing reflexivity on positionality throughout the research
process, and its integration into the project as a whole.

Language, roles and relationships

> Researchers need to acknowledge that they carry out interviews *with*,
> rather than *through*, interpreters, and that the latter's role should be
> made explicit and be the subject of critical reflection (Edwards, 1998,
> p.197).

I knew that the data generation for this study would need to be mainly in
Kiswahili. This would enable the participants to talk freely and confidently and
express their ideas in a familiar language. My Kiswahili language skills were
improving but still insufficient to conduct all of the data generation activities
directly; I would need to work with interpreters. Before reaching Bukoba, I had
not given this area much thought. My critical reflections started in Bukoba and
have subsequently developed into an area of keen interest, one that I am only
able to give a brief overview of here.

In cross-language qualitative studies, coming from social constructivist
standpoints, where interpreters have been involved, Temple and Edwards (2002)
point out how glaringly inconsistent it is to have them, "posed as a neutral
mouthpiece, faithfully and passively translating back and forth between
languages" (Temple and Edwards, 2002, p. 5) when so much store is placed in
co-construction of knowledge and positionalities of researchers and participants.

In this study, I worked with two interpreters/research assistants, Hereneus and Jasson. I will refer to them as Research Associates (RA) to reflect the pivotal roles they had in the knowledge production process (Temple and Young, 2004). Once I realised how valuable our discussions were around the key activities, I asked them to sign an informed consent (IC) form as well as their original confidentiality agreements. Working *with* RAs means recognising that "researcher, assistant and participant embody multiple positions in relation to one another, depending on several axes of intersectionality" (Caretta, 2015, p.490). Just as reflexivity involves scrutiny of my own positionality, so too must it involve consideration of the RAs, and of the shifting power dynamics and asymmetries between us (Molony and Hammett, 2007). To recognise the "triple subjectivity" (Temple and Edwards, 2002, p. 6) when working with RAs, I choose to increase their visibility throughout the research process by explicitly including their contributions in transcripts, fieldnotes, analysis and findings.

Overview of work with research associates and translators on this project.

During my time in Bukoba I paid three local men to work with me on cross-language research tasks. None were professional interpreters or translators, all were married, younger than me, university educated and worked in education, and all were from Kagera region, speaking Kihaya, Kiswahili and English.

Hereneus was a former student of mine from Katoke TTC, now working as a head teacher in Bukoba Rural. He worked on all data generation activities with children. He also did additional interpreting of audio files to add more detail to on-the-spot translations.

Jasson was a private secondary school teacher. He worked on all the adult interviews where Kiswahili was preferred and attended the majority of classroom observations which were not for the subject English.

Ezekiel, a former colleague from Katoke TTC, translated all Participant Information Sheets (PIS) and Informed Consent (IC) forms into Kiswahili.

Their contributions were invaluable, as I noted after a productive meeting with Hereneus: "will ask Hereneus to advise … I couldn't do ANY of this without him!" (Fieldnotes, 16.12.2019).

Selecting and carving cases

This section details the purposive sampling approach, processes and decision-making in case selection, justifying the choice of town and schools for the wider study.

Bukoba town

Case selection started with identifying the urban centre where I would carry out my study. The final selection was made for both practical and conceptual reasons. Since I was already familiar with Bukoba in Kagera region and had contacts there, I started exploring it as a possibility. The wider SHLC project focuses on neighbourhood level, recognising that neighbourhoods are, "the best geographical units for studying and understanding behavioural characteristics and social processes" (Baffoe, 2019, p. 7). With this in mind, alongside time concerns of a multi-city project, I decided to focus my CCS across neighbourhoods within one urban centre. Initial research into Bukoba quickly reassured me that it was a good choice.

Tanzania, still with a majority rural population, has been late to urbanise but is rapidly changing. Kagera region has one of the lowest levels of urbanisation in Tanzania (Wenban-Smith, 2015), but Bukoba, the regional headquarters is the fastest growing due high levels of rural-urban migration within the region (Muzzini and Lindeboom, 2008). This and the fact that most urban research tends to focus on mega-cities rather than secondary towns, make Bukoba a solid choice for a study hoping to make the neglected more visible. These characteristics combined with the practical benefits of conducting research in a familiar location led to the research site of Bukoba town (more detail about Bukoba is given in Chapter 7).

School selection

In this study, rather than seeing the school alone as the unit of analysis, it is seen as the focus or 'fuzzy hub' of the case as it, together with the community, homes and neighbourhoods of the school and participants, forms the case. In particular, the 'school case', includes the relationship to pupils' home learning environments. The diagram in Figure 21 below gives a visual representation of this with the green and purple central circles representing the two case schools, and the smaller circles indicating pupil homes.
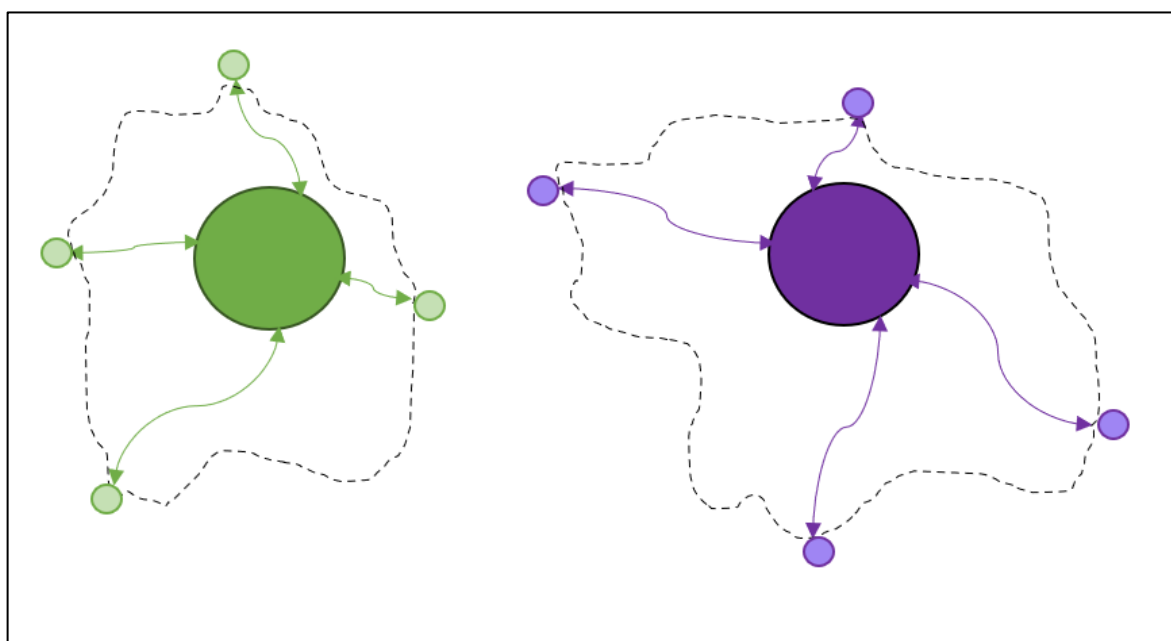
Figure 21 - The two Bukoba cases with schools as 'fuzzy hubs'.

School selection

School selection involved three main steps: exploratory town tours; introductory visits to shortlisted schools; and final reflection and selection. Discussions with key informants were ongoing throughout these steps. There were a number of considerations which guided site selection, including school performance, school receptiveness, physical school characteristics, neighbourhood characteristics and change.

In the initial exploratory tours, I visited 15 primary schools. The observations, from a distance, of greenbelt 'rural' schools, town centre schools, government and private, prompted considerations of the kind of comparison which would be most interesting, for example, I discounted dichotomous rural/urban or public/private comparisons that might position one case school in a default

deficit position. The town centre government schools were at the higher end of the school rankings and most had strong missionary legacies or ethnic identities. There were two schools which were distinct in physical appearance and this, combined with their histories piqued my curiosity.

Having discounted the greenbelt and private schools, the DEO made introductory phone calls to the remaining five schools in the shortlist and I arranged visits to meet the head teachers. All five head teachers welcomed me to carry out my research at their school. Looking back now, it would have been beneficial to start with a 'broadening phase' (Bartlett and Vavrus, 2017c), for example conducting initial interviews with all five head teachers before narrowing the selection to the final two. However, concerns regarding time, access and logistics influenced me to select two case schools at the start.

The final decision was influenced mainly by the project's theoretical and conceptual approach, especially regarding overlapping temporal and spatial factors (see Bartlett and Vavrus, 2017c and Massey, 2005). This study is not aiming for generalisability but aims to explore perceptions and experiences of learning and pedagogy in-depth. For this reason, it draws on information-oriented case selection strategies recognising atypical cases will likely generate more interesting insights (Flyvbjerg, 2006). The selection process also draws on process-oriented approaches (Bartlett and Vavrus, 2017c) where the school serves as the central 'hub' for a wider emergent case including the surrounding home and neighbourhood areas. In line with these approaches, I utilised both 'extreme' and 'maximum variation' selection strategies (Bartlett and Vavrus, 2017c, Flyvbjerg, 2006) focusing on schools with the most striking differences.

The two selected schools meet the 'extreme' criteria for case selection, standing out from other government schools because of their design and infrastructure, their oldness and newness, their performance, the range of actors influencing them, and their experience of change or lack of change. This in turn enables a 'maximum variation' strategy too. The case schools will be referred to as *Mpya Primary School (Mypa)* and *Zamani Primary School (Zamani)*. 'Mpya' means 'new' in Kiswahili and 'zamani' means 'old'. Zamani and Mpya struck me as ideal starting points for my emergent cases because, even from a few initial visits, I was already fascinated by their *throwntogetherness,* all the

components that go into making a school a school and shaping pupils' and teachers' experiences there. Full descriptions of the case schools, from a range of researcher and participant perspectives, are included in Chapter 7 and in the main findings chapters.

Participant selection

The selection criteria

This study had three 'minimum requirements', in terms of participant selection, to address the research questions. First, in order to generate data across scales, it was necessary to find participants at school, ward and district levels. Secondly, a range of methods would need to be used to access children's perceptions and experiences both in and out of school, and this would require a longer period of engagement with the study for some child participants. Thirdly, in order to address both pedagogy as ideas and practice, some teacher participants would need to take part in both interviews and observations.

In addition to these 'minimum requirements' to address the research questions there were other considerations, e.g. related to my approach to reciprocity. Including several English teachers would enable me to teach lessons in exchange for observing lessons. This would also mitigate issues of cost and availability of interpreters as I would be able to observe the English lessons on my own. Finally, when selecting teacher participants, I focused on teachers of Standards 3 to 7 as there is a different curriculum for Standards 1 and 2, and, based on previous experience of school visits, I knew that having a white woman in the classrooms of the very young pupils could potentially be quite disruptive.

In terms of pupil participants, the initial loose selection criteria were that there should be an equal number of boys and girls, and they should come from Standards 3 to 7. For reasons related to examinations and timing of fieldwork at the start of a new term, participants were selected from Standards 4, 5 and 6. These criteria for both teacher and pupil participants were shared and discussed with the head teachers from both schools as I sought their guidance on how to go about recruitment.

Participant recruitment process

Initial discussions took place with head teachers concerning my selection criteria and teacher and pupil recruitment. The DEO, WECs and head teachers regularly encouraged me to "feel free" as I went about my work and this enabled continuous access for inviting other stakeholders to participate.

The in-school recruitment process played out similarly at each school. Both head teachers suggested an initial list of teachers who matched the criteria and the final participants were a mix of some of these teachers and others who I got to know through regular staff room visits and informal discussions, all of whom understood the voluntary nature of their participation. Both head teachers also suggested a teacher to act as liaison and help coordinate research activities. These two teachers were invaluable throughout the data generation.

In terms of pupil recruitment, after initial discussion with the head teacher and liaison teachers, the final selection for clubs was made by the liaison teachers. I later asked these two coordinating teachers, Michael at Mpya and Neema at Zamani, to describe their pupil selection process and they responded in a somewhat reluctant, defensive way:

> I asked Michael about the selection of pupils for activity clubs. First, he asked why I wanted to know, then he said that you get to know the pupils and so he chose the ones who are able … who are more likely to participate. [Neema] looked sheepish – like I'd caught her! She says [it was] random … but also agrees that she chose active ones (Fieldnotes, 6.2.2020).

In both schools, I became aware during the data generation period, of other factors that may have influenced the teachers' selection, for example, both clubs included pupils who were children or wards of other members of staff, and both included children who were designated class monitors, meaning that they were already known to the teachers. The small sample of pupils was never aiming to be representative but by handing over control to the liaison teachers, I was not able to manage the recruitment process as well as I could have.

For both teacher and pupil participants, there was a smaller number of 'core' participants who took part in a larger number of research activities. For

teachers, this meant that they would be involved in both interviews and observations. For pupils, the 'core participants', i.e. those who would take part in photo-elicitation and go-alongs as well as clubs, were selected to ensure an equal balance of boys and girls across a range of classes / ages. In addition, where this needed to be narrowed further, their home and neighbourhood area and levels of participation in club activities were also considered.

Outcome of participant recruitment

The tables in this section present the outcomes of the participant recruitment process and therefore an overview of the participants and the data generation. Table 8 - Table 10 provide an overview of the final adult participants in this study and what data generation activities they were involved in. Their names (pseudonyms) and more background information are provided in Chapter 7.

Table 8 - Mpya Adult participants

	Role	M/F*	Data generation activities		
			interview	classroom observation	photo-elicitation interview
1.	Head teacher	F	███		
2.	Teacher (Researcher Liaison)	M	███	███	███
3.	Teacher	F	███	███	███
5.	Teacher	M	███	███	
6.	Teacher	M	███	███	
7.	SMC chairperson	M	███		

* Male (M), Female (F)

Table 9 - Zamani Adult participants

	Role	M/F	Data generation activities		
			interview	classroom observation	photo-elicitation interview
1.	Head teacher	F	███		
2.	Teacher (Researcher Liaison)	F	███	███	███
3.	Teacher	F	███	███	███
4.	Teacher	F	███	███	
5.	Teacher	F	███	███	

Table 10 - Other adult participants

	Role	Sex M/F	Data generation activities
1.	DEO	M	
2.	WEC - Kashai	M	
3.	WEC - Miembeni	M	interview
4.	Teacher Resource Centre (TRC) Coordinator	F	
5.	Assistant TRC Coordinator	M	

Table 11 shows a breakdown by school, class, gender and data generation activities for pupil participants in the study.

Table 11 - Child participants and data generation activities

	activity club	photo-elicitation interview	go-along
Mypa	**13 pupils** Std 4: 3 girls; 2 boys Std 5: 2 girls; 2 boys Std 6: 2 girls; 2 boys	**4 pupils** Std 4: 1 girl Std 5: 1 boy Std 6: 1 girl; 1 boy	
Zamani	**8 pupils** Std 5: 2 girls; 2 boys Std 6: 2 girls; 2 boys	**4 pupils** Std 5: 1 boy Std 6: 2 girls; 1 boy	

Finally, Table 12 lays out the total number of participants in the study.

Table 12 - Total number of participants in study

	Adult participants					Child participants			total participants
	Teachers		Other						
	F	M	F	M	Total	F	M	Total	
Mpya	1	3	1	1	6	7	6	13	19
Zamani	4	0	1	0	5	4	4	8	13
Non-school			1	4					5
					Total participants in study				**37**

Research methods

Overview of data generation methods

The CCS model highlights the use of interviews and participant observation as critical to producing "rich description of each horizontal element" (Bartlett and Vavrus, 2017c, p. 54), and more widely, case studies rely on multiple methods or "multiple sources of evidence" (Yin, 2018, p. 15) to generate intense detail and strengthen its 'rich rigor' and 'credibility' (Tracy, 2010). Furthermore, in this research working across sites, methods which could capture perceptions and experiences on the move and in situ were needed.

In terms of conducting research with children, I planned activities I hoped would be enjoyable and engaging and therefore more likely to lead to active participation and fuller contributions (e.g. Crivello et al., 2013, Boyden and Ennew, 1997). Importantly, I wanted children to have a range of different ways and tools to express themselves (Crivello et al., 2013, Benwell, 2009, Langevang, 2007, Clark and Statham, 2005, Darbyshire et al., 2005). I also sought ways to ease the power disparities between researcher and researched so the young participants were more likely to feel ownership and be in the position of 'experts' and co-producers of knowledge (Carroll et al., 2015, Porter et al., 2010, Langevang, 2007).

Table 13 outlines the methods used in this study and the following sections justify the use of each one, describing how it was planned and used to generate data in this study.

Table 13 - Overview of data generation methods and participants

Data generation method	Participants
Arts-based methods: in activity clubs	pupils
Photo-elicitation interview	pupils and teachers
Go-alongs (or walking interview)	pupils (and teacher)
Semi-structured interview	teachers, head teachers, DEOs, WECs, SMC chairperson
Classroom observation	teachers and pupils
Pre / post observation interview	teachers

Arts-based methods and the Bukoba activity clubs

Justification for arts-based methods

Arts-based data generation methods have been flexibly used across disciplines to help researchers gain insight into children's understandings and experiences of a wide range of contemporary phenomena in the minority (e.g. Ergler et al., 2015, Lodge, 2009, Morgan et al., 2002) and majority world (e.g. Benwell, 2009, Luu, 2008). Arts-based methods is a broad category but some of the most frequently used data generation activities within it include drawing pictures, maps and diagrams and planning and performing role-plays or dramas. These methods are often used as part of a participatory approach, aiming to empower participants and to give prominence to participants' voices (Ansell et al., 2012, Benwell, 2009). However, consideration of context is essential for the arts activities themselves, for example, children do not share a universal and positive response to paper and pen drawing activities (see Lodge (2009) and Ansell et al. (2012) for a useful contrast between studies in the UK and Malawi and Lesotho).

Arts-based methods and the creation of Bukoba activity clubs

In this study, I wanted to use "child-friendly techniques" (Morgan et al., 2002, p.5) in a format that would enable me and Hereneus to build rapport with participants in a supportive environment. I also wanted to include some English language activities as part of my wider approach to reciprocity and incentivising participation. To this end, I set up activity clubs in both schools. This allowed me to meet with the pupil participants regularly in a format that was familiar and easy to communicate to parents, teachers and pupils since 'subject clubs' are part of the national curriculum and are used by NGOs. Scheduling the club sessions early on in fieldwork before the more intensive individual activities (Crivello et al., 2013), allowed me to build relationships with the wider group of child participants and informed selection for the photo-elicitation and go-along activities.

The Bukoba activity clubs: preparation

I designed data generation activities using multiple arts-based and focus-group methods under four main themes in order to address all elements of the

research questions. Table 14 shows the themes and tasks that the children participated in. The four main data-generating activities are highlighted in bold in the middle row of Table 14. Each one is preceded by preparation or 'scaffolding tasks' and followed by an English language component. Each theme concluded with a short feedback activity.

Table 14 - Outline of activity club themes and content

Theme:	1. Introduction and daily activities	2. My ideal school	3. My neighbourhood / My journey to school	4. My learning
Scaffolding tasks	Getting to know you Ethics/assent Brainstorming; **mime** game	Pictionary **drawing** game Teach the Teacher: schools	Memory/speed describing game Teach the Teacher: neighbourhoods	Brainstorming
Main task	Acting out My daily routine **mini-drama**	Collaborative **picture drawing** and analysis	Collaborative **map** drawing and gallery walk/ presentations	Teaching and learning **posters** and analysis Mapping stories: Zamani only
English language focus	Aisha's daily routine (present simple for habits)	Vocabulary: School (people, places and activities)	Giving directions in a town	Bilingual dictionary use
Feedback activity				

From my previous experience in Tanzanian primary schools, I knew that some degree of learner training, or a 'scaffolded' approach (Juma et al., 2017) is required if you want participants to more fully or independently engage in activities which are unfamiliar. 'Scaffolding' is often seen as part of a social constructivist approach to teaching and learning which recognises that children need structured support in learning, and the gradual withdrawal of that support, in order for them to learn to perform tasks independently (see, for example, classic social constructivist texts by Vygotsky, 1986, Wood et al., 1976). This sequencing aimed to create a supportive environment for the children whilst

building opportunities for freer participation. In this preparation stage, I also included 'Teach the teacher' activities based on the idea of 'generative words' or "naming the world" (Freire, 1970, p. 88) where I asked the children to 'teach' me the Kiswahili words I should know to understand their school or neighbourhood. This served as a valuable tool to help bridge the language gap and the 'authority gap' as here the children were the 'experts' (Clark and Statham, 2005).

In each main task, the art 'products' are used as a stimulus for discussion and this, together with the processes and interactions which generated it, form the main data, rather than the art itself (e.g. Crivello et al., 2013, Darbyshire et al., 2005, Young and Barrett, 2001, Boyden and Ennew, 1997).

I carefully considered the venues for clubs and consulted with teachers, RAs and other local contacts. Several studies have warned against using classrooms or other school venues because of the very strong school-based norms that influence pupils' behaviour (Anderson and Jones, 2009, Darbyshire et al., 2005, Morgan et al., 2002). However, both the logistics and ethics of finding and setting up other venues meant that school venues were chosen. Considering the spatial approach in this study, observing the different interactions that occur in the same space became a point of interest. An overview of the club sessions for each school can be seen in Table 15, showing the difference in timings and durations of club sessions to fit in with school requirements.

Table 15 - Activity club overview

Activity club	No. of participants	Standards	Sessions
Mpya	**13** **6 ♂ 7♀**	4-6	School holidays and weekend 08.00 – 12.30 One theme per day
Zamani	**8** **4 ♂ 4 ♀**	5 and 6	After school, twice a week, 14.30 – 16.00 One theme per week

The Bukoba activity clubs: process

In order to establish the club space, the participants and I would rearrange the desks into 'club' formation. Figure 22 shows the standard classroom layout at

Zamani and Mpya. When full, with three pupils to a desk there is very little room to move.
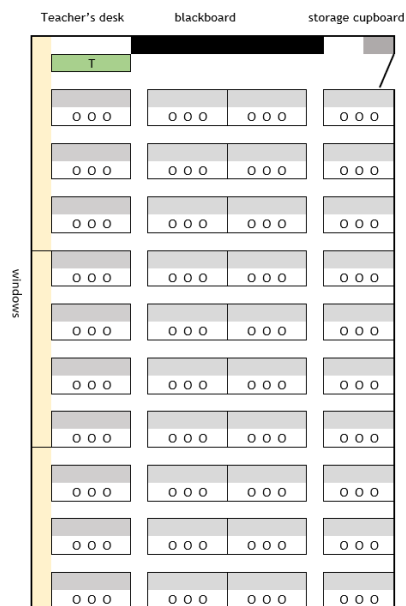
Figure 22 - Typical classroom layout

Figure 23 illustrates some of the different layouts used to facilitate club activities. These arrangements went some way towards reframing participants as co-owners of the club space but the roles of the adults and children involved were still very strongly influenced by the school setting. However, as seen in Figure 23 interactions and groupings were varied compared to in the classroom. This variety enabled me to increase participation as well as access children's negotiated meanings through interactive tasks (Morgan et al., 2002).

Figure 23 - Classroom layouts for activity clubs

The sessions and post-club discussions were audio recorded, Hereneus and I took written notes and then I wrote up detailed post-club observation notes. I also took photographs of the participants' drawings, notes and any data on the blackboard (See Figure 24 to Figure 28). Data from different sources were combined into Word documents according to school, club date and theme and this document was uploaded to NVivo for coding.

Figure 24 - Example 'Ideal School' drawing
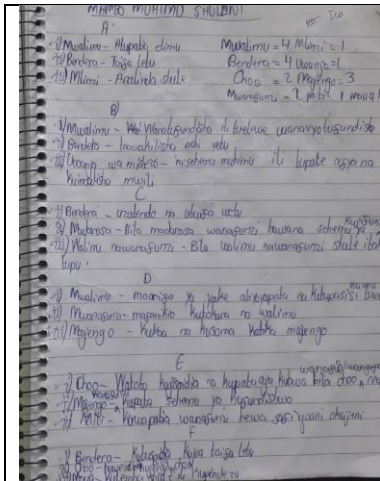
Figure 25 – Example participant's notes from peer presentations on most important things in a school
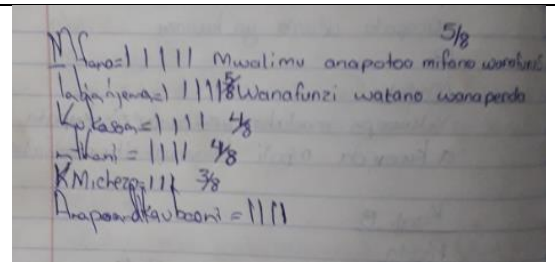
Figure 26 – Example participant's rough notes identifying themes in pupil analysis of "I like it when my teacher..." task
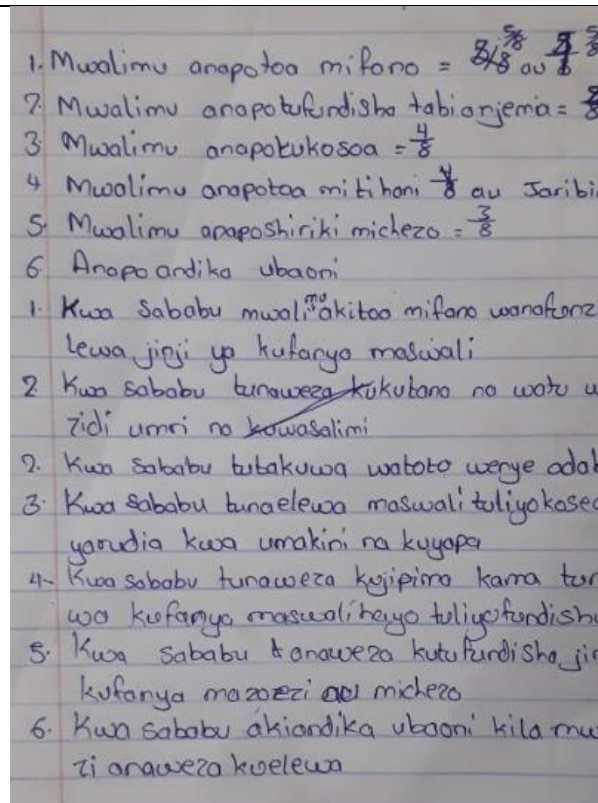
Figure 27 – Example participant's notes showing prioritised themes with reasons in pupil analysis of "I like it when my teacher ..." task

Figure 28 – Example blackboard notes from Zamani participants' Teach the Teacher' about their neighbourhood

Club participants were provided with stationery to use during the project, and refreshments during club sessions. As a token of gratitude in the final session all participants were given a gift of school stationery, a dictionary and a group photograph.

Ongoing participant feedback on club sessions was always positive with comments focusing on aspects such as enjoying learning about their peers, or enjoying drawing. I believe this was mainly a genuine response but that social norms also made it unlikely for them to give negative feedback. However, in the closing session at Mpya when I asked how I could improve the clubs for Zamani, I recorded four mixed main points from participants:

- Rhona to learn more Kiswahili
- Better to teach more English
- Teach in the same way
- Please remember them and visit them again (Fieldnotes, 25.1.2020)

I was very pleased that they felt able to share this feedback and I took it as an indication that we had successfully created a safe and supportive club environment. I was able to revise approaches for the Zamani clubs based on this.

Overall, using multiple arts-based methods within the format of clubs is of great value in that each activity provided different but complementary information about the children's lives. Furthermore, as well as it being an engaging and enjoyable process for the child participants, it can be similar for the researcher. My fieldnotes during the Ideal School activity in Zamani illustrate this:

> Sitting in club – participants drawing and giggling and I'm feeling very very lucky (Fieldnotes, 5.2.2020).

Photo-elicitation interviews

Justification for use of photo-elicitation interviews

Visual research methods using participatory photography can be a powerful tool in qualitative research, enabling the participant to actively engage in the data generation process and steer interviews or discussions by showing what is meaningful to them (Holm, 2014). In 'photo-elicitation' methods, the photographs act as a "stimulus for talk" (Cooper, 2017, p. 625); participants

take photographs which are used for further discussion and analysis. One key strength is that participants are actively involved in producing data and there are opportunities for them to take the lead (e.g. Cooper, 2017, Clark and Statham, 2005, Einarsdottir, 2005). Another strength is that this method can allow the researcher to access spaces that would otherwise be inaccessible (Burningham et al., 2020, Milligan, 2016, Young and Barrett, 2001) or where their presence may be seen as intrusive or 'voyeuristic' (Mah, 2014). In this study, I hoped that putting the cameras in the hands of the participants would allow them to shape the direction of the interview, again taking on an 'expert' role (Rose, 2016), help them articulate their ideas on more abstract concepts (Einarsdottir, 2005) and reduce the intrusiveness of the outsider researcher or 'tourist' into neighbourhood spaces (Mah, 2014).

The Bukoba photo-elicitation interviews: preparation

Selecting the equipment for photo-elicitation activities involves practical, contextual and ethical considerations. Due to cost and availability, I used donated second-hand phones and cameras. Ethical approval was given after I had added further detail as to how to ensure no sharing of digital photographs or misuse of phones by participants. Burningham et al. (2020) emphasise the importance of ethics in context, and so the final decision about use of equipment was not made until I had been in Bukoba for several weeks, had observed the use of phones and cameras by local people, conducted a small trial with my 11-year-old neighbour and discussed the issues with local contacts. Finally, I used the two digital cameras with child participants, with a limited time to reduce risk of misuse and to restrict photography to areas near home and school. Each of these choices has implications for how and what data are generated but this is a good example of the constant balancing in decision-making and ethics in practice.

The Bukoba photo-elicitation interviews: process

Preparation sessions

Regardless of whether participants have experience of using cameras or not, it is recommended to have an orientation or training session to cover technical and ethical issues (Ho et al., 2011, Holm, 2014). At each school, Hereneus and I ran a

photo-elicitation preparation session with the four pupil participants. None of the eight pupil participants had used digital cameras before and as anticipated, they responded very positively. My fieldnotes described them variously as, "excited", "confident", "quick to learn", and "tak[ing] it very seriously" (Fieldnotes, 17.12.2019 and 27.2.2020).

The participants did a series of practice tasks to become familiar with the camera's basic functions. After Hereneus and I had set up the PE activity (see final task instruction sheet in Appendix 1), they worked in pairs to draw up a list of rules for using the cameras. Then, building on their lists, we finalised a set of agreed rules that the pupils signed (see example in Figure 29).
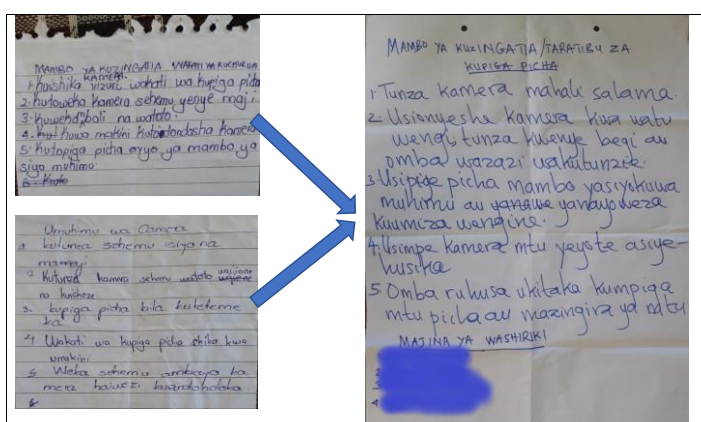
Figure 29 – Example pupils' agreed list of rules for camera use

Most of the rules suggested by the pupils focused on taking care of the camera and reflected their concern about looking after this equipment and their commitment to the activity, e.g. "not to put it near animals or birds such as cats, chickens, guineafowl" (participant PE rules, 27.2.2020). Both groups included a small number of rules of use looking at the content and ethics, e.g. "to take pictures of things ethically/morally" (participant PE rules, 17.12.2019). When we drew up the final agreed rules, we discussed these ethical issues in more detail, finally agreeing the following in Zamani:

- don't take a picture that will make someone feel bad
- ask permission if you want to take a picture of a person or their environment

To reduce risk, we encouraged the participants to use the camera at school or in their immediate home environment and suggested they ask an adult family

member to go with them if they wanted to take photographs in the wider neighbourhood. Participants were either given the cameras overnight or over a weekend and were asked to return the camera directly to the researcher or a nominated teacher so that they were not responsible for the camera during the school day. Parents were informed when children were bringing cameras home.

All the pupils completed the activity on time, returned the cameras as requested and approached it seriously. For example, Martha[11] from Mpya wrote out the instructions again with notes of what photographs she took in order to prepare for the interview. Her addition of *"God herp [help] me"* at the bottom is another indication of her committed approach (See Figure 30).
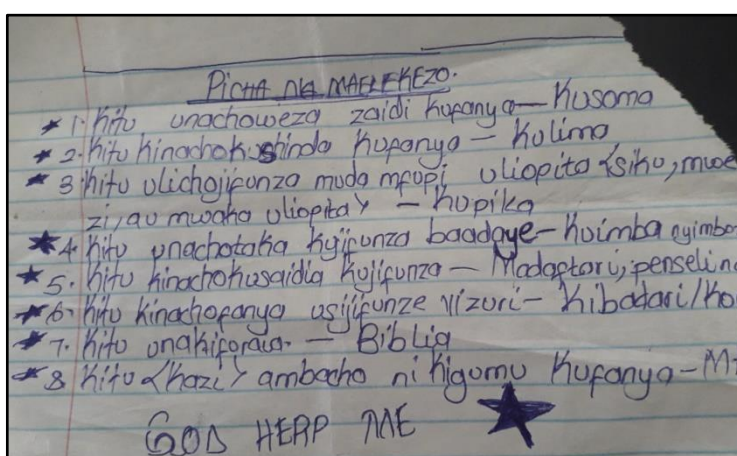
Figure 30 - Martha's handwritten photo-elicitation instructions

Interviews

In the interviews, the participants were asked to describe what was in each picture (displayed on my laptop screen) and why they had taken it. I then asked related follow-up questions, with the RA supporting with translation and guidance. At the end of each interview, I asked:

1. What did you think about this activity?
2. How did you select these pictures?
3. Were there any pictures you wanted to take but couldn't?

When answering question 3, one pupil had wanted to take a picture of a teacher teaching, to show something she enjoyed. Burningham et al. (2020) also reported that young research participants in Bangladesh had struggled with the

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[11] All names used are pseudonyms. More participant details are provided in Chapter 7.

guidance not to take photographs of people as often they were the most important things in their lives. In their research they decided to change the guidance to allow it whereas in mine, the follow-up questions ensured I asked about absence as well as presence (Ho et al., 2011). This is an example of the trade-offs in ethics in practice. The interviews were recorded and transcribed.

Overall, I found using this research method very enjoyable and incredibly useful, but I concur with others who have used photo-elicitation that it is important to keep in mind that participants are 'making' pictures (Cooper, 2017) by choosing what they want to show you, for their own reasons, and how they want to present it and talk about it. A photograph does not provide a better reality than any other method just because it produces a concrete image of an object or event (Burningham et al., 2020). Having said that, the trust and rapport that was built with the participants during the process and the insights that photo-elicitation interviews allowed me as an outsider researcher mean that it was a particularly valuable part of my multiple methods approach.

Photo-elicitation with adult participants

Towards the end of fieldwork, having built good relationships with teachers at both schools, I invited two adult participants from Mpya and Zamani to take part in a slightly adapted photo-elicitation interview. The preparation was less formal with no orientation session. The pupil instruction sheet was slightly adapted including taking pictures of, for example, 'things you like about your school', and 'things that make it difficult for your pupils to learn'. The interview process followed the same steps as for children and teachers were keen to share and discuss their photographs.

As with the pupil participants, this was a particularly useful way to gain insight into teachers' lives outside school. The error I made, however, was in glossing over the ethical issues that were covered in the children's orientation. Two of the four teachers took photographs of pupils, for example, one took a photograph of two boys found hiding in the toilets and skipping class because they were not wearing their full uniform. This led to useful discussion but there were uncomfortable ethical issues of lack of consent for the photographs themselves.

Go-alongs

Justification for use of go-alongs

Go-alongs and other mobile or walking interview methods are increasingly used by social science researchers, especially those interested in the spatial aspects of a phenomenon (Carroll et al., 2015, Porter et al., 2010, Benwell, 2009, Carpiano, 2009, Langevang and Gough, 2009, Kusenbach, 2003). The common threads that join the uses of this method across disciplines are to gain insight into participants' lives through research activities 'in situ', and to add depth and texture to data about participants' perceptions and experiences of their environments (Kusenbach, 2003). This method is valued for its potential to help bridge the gaps left by sedentary interviews, which separate participants from their routines and natural environment, and participant observation, which can end up revealing more about the observer's standpoint than the phenomenon of interest (Kusenbach, 2003). Go-alongs use 'live' visual clues as prompts and this supports participants' recall (Porta et al., 2017). One of the distinguishing features of the go-along which separates it from a walking interview, is that the researcher 'goes along' with the participant while they undertake a routine journey or "natural outing" (Kusenbach, 2003, p. 463). I chose to accompany pupil participants on their journey home from school.

Since the children involved in go-alongs in my study walked to school unaccompanied by adults, exploring the space of the school-home journey gave me the chance to see how they occupy and engage with their surroundings on their own terms. The school journey can be seen as holding opportunities for children to "exercise their agencies" (Kullman and Palludan, 2011, p. 348) and have "freedom from adult control" (Gough, 2008, p. 247). Overall, then, we see that the interactions and dynamics involved in go-alongs, can make them distinct from other methods and have the potential to make a valuable contribution to a multiple methods study.

The Bukoba go-alongs: preparation

By the time of the go-alongs, the pupil participants had all spent over 12 hours with Hereneus and I, and we had built up familiarity and a good rapport. Table

16 shows the eight go-along participants, and basic information about their home and school wards and journeys.

Table 16 - Pupil participants on go-alongs

	Pupil participant	Age	School Ward	Home Ward	Is home in school catch-ment area?	Pupil reported time for school journey (mins)	Time for school journey on go-along (mins)
Mpya	Martha	9	Kashai	Kashai	Yes	10	c.11
	Julius	11	Kashai	Kashai	No	30	c. 31
	Grace	12	Kashai	Kashai	No	30	c. 30
	Oscar	12	Kashai	Kahororo	No	30	c.29
Zamani	Susan*	12	Miembeni	Kashai	No	30	c. 51
	Happy**	11	Miembeni	Bakoba	No	12	c.24
	Emmanuel	11	Miembeni	Nshambya ***	No	21	c. 52
	Benson	14	Miembeni	Miembeni	Yes	5	c.38

* Jasson, not Hereneus, accompanying on this go-along.

** We walked to her tuition centre, not her home. Her home is further away.

*** We entered three different wards on the journey.

The Bukoba go-alongs: process

Before leaving the school, the participants were told that we wanted to walk home with them and that we wanted them to tell us all about the places we were passing. As outlined in the study proposal and ethical approval submission, when there were long pauses or silences, I used questions based on the prompts (See Appendix 2 for go-alongs schedule). In some of the go-alongs, for example with Martha and Grace, the go-along was like a mobile semi-structured interview, with a heavy reliance on my questions and very little initiated by the participant. I used a small voice recorder which caught most but not all audio.

As with some of the other club approaches, the move from Mpya to Zamani was a good time for reflection and revisions. My main concern was to find ways to encourage the participant to take a more active role in initiating talk. There were two key moments that led me to the main change I made. Firstly, in an 'accidental' activity at the beginning of the final club at Mpya, I asked Salome, a participant who arrived early, to do an audio-tour of the school. He returned later with the recorder, looking pleased and informing me that he had gone around the whole school. It seemed that he was also pleased that he had been

trusted with this piece of equipment, had quickly learned to use it, and had been able to complete the task by himself. The recording was clear and detailed. The second key moment was after the first activity club at Zamani when it was becoming clear that the dynamic and energy of this smaller group could have implications for how we worked together. Fieldnotes noting that this was a "good day" recorded the following:

> They seem keen and pretty switched on … they also suggested that we should get out and explore more if I want to understand the *mazingira* [environment] (Fieldnotes, 30.1.2020).

As a result of these observations and ideas, for Zamani go-alongs, I asked the participants to hold the voice recorder and report on the journey as we went, 'reporter' style. Overall, I was very pleased with how this went, both in terms of quality of interaction and data, and practically in terms of sound quality. The information in Table 16 also shows that the go-alongs from Zamani took significantly longer suggesting that maybe being in charge of the voice recorder put them in more of an 'expert guide' role which slowed them down as they concentrated more on the interaction and 'reporting'. Overall, I feel that the revised approach at Zamani worked well and aided rapport, participant confidence and data generation.

The go-alongs were an essential part of the multiple-method approach in this study and a valuable tool for interacting with pupil participants in their own neighbourhoods. I agree with Porter et al. (2010) that they "opened a window for us into [participants'] everyday lives and daily routines" (Porter et al., 2010, p. 92) and brought their experiences to life in ways that the other methods could not achieve.

Walking interview with adult participant

One teacher from Mpya also agreed to take part in a walking interview and rather than a school-home go-along, he offered to plan a walking tour to help me understand the neighbourhoods and environment around the school. We spent over three hours together, covering 8.5km of greenbelt, lake-side fishing and urban areas. We briefly dropped into a staff meeting at his previous school, a former neighbour's house for a drink and snack, and a church choir rehearsal.

Semi-structured interviews

Justification for use of semi-structured interviews

It may seem that interviews are a taken-for-granted part of many qualitative studies but in this study, it was clear that interviews, and in particular semi-structured interviews, would be a strong fit in terms of epistemology and case study design. The overall approach of interviews as a data generation method is based on humans as "conversational creatures who live a dialogic life" (Brinkmann, 2014, p.319) and although the notion of interviews as 'conversations with a purpose' has been much built on to emphasise the hard work, planning and power dynamics involved in these conversations (Yeo et al., 2014), I find this core concept very helpful. Through the focussed conversation, knowledge is co-constructed by the interviewer and interviewee (often with the RA); the interaction itself is producing knowledge rather than simply a one-way 'mining' of information by the interviewer of the interviewee (Yeo et al., 2014).

Another reason why interviews were selected is linked to the conceptual fit with pedagogy as ideas as well as practice. Useful insights into pedagogy have been gained through semi-structured and in-depth interviews because the decision-making, ideas and beliefs which influence the pedagogical practices are not necessarily visible through classroom observation (Alexander, 2008). Other studies have taken a similar approach, where, in order to capture the complexities of learning, teaching and pedagogy, interviews and observations have been used to reflect the multiple factors involved (Miles et al., 2018, Akyeampong et al., 2013, Vavrus and Bartlett, 2012, Barrett, 2008, Hufton and Elliott, 2000).

One of the benefits of the semi-structured interview is its intrinsic combination of structure and flexibility (Bartlett and Vavrus, 2017c, Phillips and Schweisfurth, 2014, Yeo et al., 2014). This allows the researcher to plan ahead to ensure that key themes are captured but also to leave room for the participants to take the conversation in different directions.

One criticism often levelled at the interviews is that interviewees are not always honest and what they *say* they do is not necessarily what they do (Jerolmack and

Khan, 2014). However, I do not see this as a limitation. Rather, it highlights the importance of using other methods in conjunction with interviews and of remaining open to contradictory meanings (Brinkmann, 2014, Yeo et al., 2014, Kane, 1995).

The Bukoba interviews: preparation

This study used face to face semi-structured interviews, usually between 40 and 60 minutes, with a range of education stakeholders, and shorter pre and post observation interviews with the 'core' teacher participants. Interviews were conducted with teachers, head teachers, the DEO, WECs and a SMC chairperson. This aligns with Alexander's call for research to engage with intermediate level between schools and national government to see how they influence the classroom (Alexander, 2009). Table 17 shows the interview participants in this study. In brackets, 'K' shows interviews conducted in Kiswahili with an RA and 'E' shows those done in mainly in English without an RA.

Table 17 - Interview Participants

	Mpya	Zamani	Interview venues
Teachers*	Total= 4 3 ♂ 1 ♀ (K x 2; E x 2)	Total = 4 4 ♀ (K x 2; E x 2)	vacant classrooms, store cupboard, church hall,
Head teacher	1♀ (K)	1♀ (E)	office
WEC	1 ♂ (K/E)	1 ♂ (E)	vacant classroom and office
SMC chairperson	1 ♂ (K)		private nursery outdoor classroom
TRC staff	1♀ 1 ♂ (K)		TRC
DEO	1 ♂ (E)		office and restaurant

*These teachers are the core teacher participants

The interview schedules for head teachers and teachers were trialled and refined at the beginning of the fieldwork period with Hereneus and Jasson respectively. This allowed me to check practical, ethical and content issues such as question phrasing. It also gave the interpreters an opportunity to become familiar with the interview format in preparation for their roles later.

The interview schedules were adapted for each participant group but the core sections were the same:
1. Introductions and ethics

2. Background and professional experience
3. Schools, pupils and neighbourhoods
4. Pupil learning

A sample interview schedule can be found in Appendix 3.

The Bukoba interviews: process

An in-depth interview "requires developing a trusting personal relationship … that encourages open, honest, and detailed replies" (Rubin and Rubin, 2012, loc. 537). In all of the semi-structured interviews, I had already had the chance to meet the participant at least once beforehand (to set up the interview), and in many cases we had met several times in informal staffroom chats and started to develop a good rapport. In the majority of cases, I asked in advance if the participant would prefer to do the interview just with me, in English, or in Kiswahili with an RA. In the latter situation, the RA would introduce himself and explain about their confidentiality agreement. I used the interview schedule with themes and prompts flexibly as a guide. Each interview concluded with an invitation to the participant to add final thoughts and questions.

I took relatively sparse notes during interviews, focusing on the ongoing interactions, but I attempted to capture other observations and impressions in fieldnotes immediately afterwards and again when listening to the recording.

Interviews formed a central part of this study, and though I was certainly more excited about less familiar methods such as go-alongs, I agree with Rubin and Rubin in their assertion that of all the methods, some of "[the] richest, subtlest, and most insightful data have come from the in-depth interviews" (2012, loc. 590).

Observations

Observation data are a common and valuable feature of qualitative case study research, and lend particular insight in the horizontal axis of the CCS approach (Bartlett and Vavrus, 2017c). Observation data can be especially useful when investigating processes which are complex and difficult to describe; where behaviour is instinctive or heavily influenced by social norms; or where there is a

strong interest in interaction with the physical environment (Nicholls et al., 2014). This study of pedagogy and learning through a spatial lens maps very neatly on to these points making observation an essential method.

Observation has also been criticised as a method for being inherently subjective since the researcher is involved in and affects the natural setting being observed (Nicholls et al., 2014). However, if not striving for objectivity, and in fact, if a reflexive, interpretivist approach is taken, as in this study, then this criticism can be easily dismissed. As Nicholls et al. point out:

> The researcher's experience of what they observe, their response to it, the physical and emotional feelings it evokes, are all part of where the value of observation lies (Nicholls et al., 2014, p. 245).

I used two kinds of observation in this study: classroom observation of primary lessons in the two case schools, and, to a lesser extent, general field observations, both as *participant as observer* when volunteering to teach primary classes as part of the project's reciprocal approach, and as *observer as participant* during more general school and community visits (Nicholls et al., 2014). Observation field notes were recorded in my research journal and combined with personal reflections on the overall research experience, with the journal becoming "a useful place to accept conflicting emotions" (Punch, 2012, p. 90).

The following sections will focus on the justification for and approach taken to classroom observation methods which generated data which are central to the findings and discussion in Chapters 8-10.

Justification for use of classroom observations

As introduced in the semi-structured interview section above, it is the complementary use of both teacher interview and lesson observation that allows a researcher to gain insight into both "action and meaning" (Alexander, 2000, p.269) when researching complex teaching and learning processes.

Alexander's observation approach (2000), which I draw on here, was to balance the atomization of teaching with holism: to hold onto the rich detail within a lesson whilst still seeing the bigger picture. Detailed descriptions of teachers'

and pupils' words, actions and interactions can be illuminating but it is the contextualised understanding of these, along with recognition of intentions, beliefs and constraints that offer real insight. Several of the qualitative studies cited in Chapter 5 clearly demonstrate the value of deeply contextualised classroom observation and have influenced this study (e.g. Tao, 2013, Vavrus and Bartlett, 2012, Brock-Utne, 2007). For example, using detailed observation of interaction and communication, Brock-Utne was able to reflect on the relationship between classroom practices and national education policy, identifying the potential "stupidification of the Tanzanian labour force" (Brock-Utne, 2007, p.487).

Alexander (2000) poses a key question about one of the main limitations of classroom observation: "to what extent a lesson which is observed … is likely to yield data which is typical of that teacher and his and her pupils" (p. 277). As soon as the observer enters the room, the lesson has been changed and the observer and act of observing impacts on the teacher and pupils. Since it is hard to mitigate the influence the observer has on the teacher and pupils, I prefer to mitigate interference in interpretation and representation of the lesson by framing them strongly as 'observed lessons'. My presence in the classroom is part of the data, part of the analysis, because I was part of the classroom space. As Massey (2005) highlights, even when passing through:

> Since space is the product of social relations you are also helping, although in this case in a fairly minor way, to alter space, to participate in its continuing production (Massey, 2005, p. 118).

The Bukoba classroom observations: preparation

The observation schedule in this study used a simple, open format which allowed for sequential fieldnotes under basic structuring headings of time, teacher activity, pupil activity and additional commentary (see Appendix 4, Part 2). This is based on the format used in Alexander's five country study (2000) but is also similar to ones I had used in professional teacher observations and found to be user-friendly and suitable for capturing rich detail. There was also a coversheet for each observed lesson where basic information about the lesson and classroom was recorded (See Appendix 4, Part 1).

Each of the eight 'core' teacher participants were invited to do the semi-structured interview before their first observation. I asked to observe each participant teaching at least two lessons during the fieldwork period and in different subject and classes. I also invited the teachers to meet with me briefly before and after the observation to answer a few questions about the lesson. Themes and prompts for the pre- and post- observation interview are outlined in Appendix 5.

The Bukoba classroom observations: process

I observed 14 lessons, totalling around 12 hours of teaching, across eight subjects and five grades. Table 18 shows the breakdown of observations at each school. A single period is 40 minutes but the table shows that lessons were regularly extended and shortened. This seemed to depend on a number of factors such as if the next teacher arrived to take their lesson and if the observed teacher had started on-time.

Table 18 - Observed lessons at each school

School	Subject	Standard	No. of pps.	Timetable period	Minutes	RA?
Mpya	English	3	93	double	70	N
	English	6	41	single	35	N
	Science and technology	4	115	double	85	Y
	Science and technology	6	40	double	60	Y
	History	7	92	single	60	Y
	Civics	7	92	single	45	N
Zamani	English	3	132	single	35	N
	English	5	141	single	40	N
	English	6	107	single	35	N
	English	7	121	single	35	N
	Science and technology	3	132	single	20	Y
	Civics	7	121	single	55	Y
	Kiswahili	6	107	single	35	Y
	Social studies	6	107	single	45	Y

Although I had planned to conduct both pre and post lesson interviews to, "tease out teachers' intentions for, and accounts of, the lessons in question" (Alexander, 2000, p.269), in practise, it was very difficult to find time to meet teachers before the lesson because of conflicting duties. I managed to conduct post-observation interviews for all but one observation.

During the observation itself, I sat at the back of the classroom. In English lessons I conducted the observation alone and for other subjects, Jasson accompanied me, completing the same observation schedule with his detailed notes in Kiswahili. I started by sketching the physical layout of the room (see Figure 31) and noting basic lesson information on the coversheet.
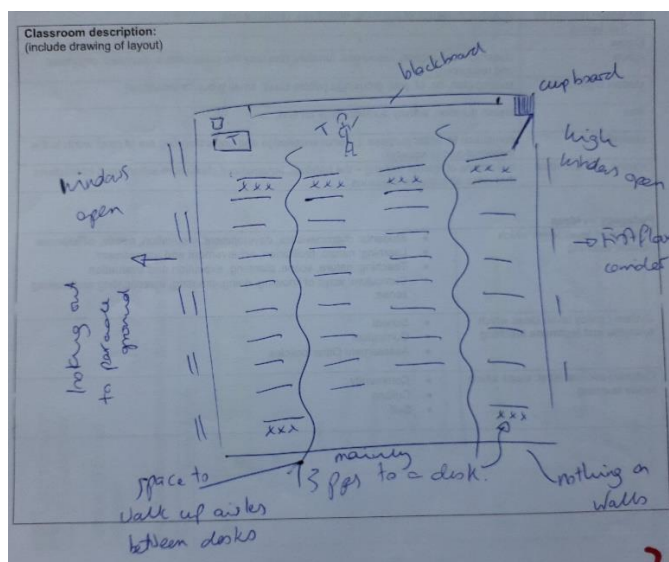
Figure 31 - Example sketch of classroom layout in observation

Then I took detailed notes throughout the lesson, noting teacher and pupil movement, interactions, activities, use of materials and teacher's and pupils' verbatim words as much as possible. Notes also included pupil activities that I can see from my vantage point that the teacher may be unaware of. I also added my own commentary in terms of the moods, behaviour and energy of the class and teacher. See Appendix 6 for sample observation notes.

After the observation and interview, in the cases of English lessons, I would review and add to my observation notes. For lessons in other subjects, Jasson and I would go through the lesson comparing and discussing our notes and I would write up a combined record of the lesson.

Despite the disruptions I caused by entering their lessons, teachers were welcoming and helpful and the classroom observations not only generated useful data but also put me in the privileged position of being allowed to observe others' professional practices.

Ethics

> Research is the pursuit of truth, through practices of curiosity and care. Truth does not mean fact rather than fantasy, but the unison of experience and imagination in a world to which we are alive and that is alive to us (Ingold, 2018).

Tim Ingold's quotation captures well both the core of ethical research (curiosity and care) and the interaction and interdependence between the researcher and researched, similar to Massey's 'encounters' (2005). However, this can seem quite distant from the formality of university ethics procedures (Guillemin and Gillam, 2004). Indeed, there are a number of scholars who have drawn attention to the gap between institutional ethics requirements and a broader view of what constitutes ethical research (Pickering and Kara, 2017, Bradley, 2015, Abebe and Bessell, 2014, Araali, 2011, Crow et al., 2006). 'Ethics' should not be "reduced to the act of filling in a form" said Bradley (2015, p. 160) who questioned the box-ticking approach taken by her university where she felt that, "ethical research equalled research that had been ethically approved" (Bradley, 2015, p 160). This approval process also seems to focus narrowly on the 'data collection' stage of the research. Pickering and Kara suggest that this problem stems from the epistemological perspective where:

> Human participants are understood as sources of data. As such, once they have yielded that data, it becomes the property of the researcher, and the research relationship ends there (Pickering and Kara, 2017, p. 300).

This narrow, instrumental view of the research participant leaves little consideration for the ethics of interpretation, representation or dissemination, and the ongoing ethical decisions that researchers continue making long after they have left 'the field'.

This section will look at two dimensions of ethics: *procedural ethics*, which is concerned with the institutional protocols which govern research practices, and *ethics in practice* which can be seen as the "day-to-day ethical issues that arise in the doing of research" (Guillemin and Gillam, 2004, p. 264).

Procedural ethics

The three main components of procedural ethics for this study were the University of Glasgow's ethical approval process, Tanzania's Commission for Science and Technology (COSTECH) application process for Research Clearance, and the regional, district and local levels of permissions. The first centres on the successful submission of the *Staff and Postgraduate Research Application Form, College Ethics Committee for Non-Clinical Research Involving Human Subjects.* Going through this process forced me to think through the details and implications of my methods, considering the data generation activities from a range of perspectives e.g. the use of phones and cameras. Different versions of Participant Information Sheets (PIS), Informed Consent (IC) forms were finalised and approved through this process (see Appendix 7 and 8 for English versions). Finally, this process encouraged me to think through my approach to reciprocity (e.g. offering to teach lessons for English teachers) and incentives for participants (e.g. provision of stationery gifts to pupils, resource packs to schools), all from an ethical perspective. One gap in this process concerns working with RAs. Issues such as fair payment for time and work, and potential risks that may affect local RAs long after fieldwork have been cited as neglected issues in cross-language research (Berman and Tyyskä, 2011, Molony and Hammett, 2007, Edwards, 1998) and were not included in my institution's approach.

Obtaining research clearance through COSTECH required a detailed proposal, an application form and requirements regarding having an official 'field attachment'. This was linked to immigration status and processes involving security bonds, police checks and residents permits that ran in parallel with the research clearance. The SHLC partner institution, the Ifakara Health Institute supported me as a 'local collaborator' in these processes.

At a local level, as soon as I had established contact with the DEO and we had started building a strong rapport, he made life very easy. Through him, using a series of official letters, I received permission from the regional and district councils and then, from the head teachers at the two schools.

Ethics in practice

Data generation started once requirements of all procedural ethics and permission processes had been met. There is no doubt that completing these processes was a steep learning curve but, as Guillemin and Gillam (2004) argue, "It is within the dimension of "ethics in practice" that the researcher's ethical competence comes to the fore" (p. 269).

Trialling the head teacher interview with Hereneus was a useful way to see the gaps between *procedural ethics*, *ethics in practice* and "local ethos" (Abebe and Bessell, 2014, p. 130). I went through the full PIS with him, then asked him to read and sign the IC form. It was a lengthy process and it immediately felt like the wrong way to start an interview where you want to quickly build rapport. I noted that, "he looked slightly puzzled and bored throughout" (fieldnotes, 11.11.2019). Together we reviewed the process and Table 19 outlines the process I followed with participants thereafter.

Table 19 - Informed consent processes with participants

Participants	Participant information about the study	Informed consent
Adults	Provided with PIS minimum 1 day prior to first data generation activity then face to face oral summary later	Signed IC form after oral summary
Parents	Oral presentation and Q&A in meeting	Orally with contact details signifying IC
Children	Oral presentation in first club meeting	Oral assent in club activity

IC has been identified as a middle-class and western concept, and the processes of gaining IC have been found to inhibit trust-building and ultimately negatively impact the quality of data (see Crow et al., 2006). The cultural association with obtaining a signature is one reason why IC can be problematic in African contexts: "a signature is proof of the exchange of objects among people who do not trust each other" (Araali, 2011, p. 47). Since I was in Bukoba for 5 months, I had other opportunities and ways to build rapport and trust but the initial process of gaining IC was off-putting and prevented me from engaging with more participants, for example parents when invited into their homes after go-alongs.

I fully endorse the principles of ethical research but add my voice to those who would like to see locally contextualised guidelines for ethical conduct (e.g. Abebe and Bessell, 2014, Araali, 2011).

Another example of ethics in practice, but this time extending beyond fieldwork, is related to representation of participants and places in the write-up of research. All participants had signed the IC and so agreed to pseudonyms being used instead of their own names (the RAs chose for their real names to be used – not an option that I had presented to participants). They had also been informed that this aided but did not guarantee anonymity. Similarly, I selected names for the two case schools. In procedural ethics the default of anonymisation is still regarded as a "straightforward ethical good" rather than one of many competing goods (Pickering and Kara, 2017). While writing this thesis, I continued to tackle ethical questions such as:

- Should I attribute quotes to specific participants when they have made particularly controversial or critical comments, knowing that within the community, they could be identified if the document was shared? (I decided to redact names.)

- Should I redact details of the case schools which could identify them when those same details are central to the spatial approach of the study? (In this trade-off I removed some of the participants' background information to make them less easily identifiable.)

These examples are just two of many ethical decisions which had to be made long after the ethical approval had been granted. A useful guide throughout that I endeavoured to follow was: "to whom do I owe a duty of care, and what is it?" (Rugg and Petre, 2020, p. 107).

Analysis

> The pathways to forming ideas to pursue, phenomena to capture and theories to test begins right at the start of a research study and ends while writing up the results. It is an inherent and ongoing part of qualitative research (Spencer et al., 2014b, p. 269).

Although the 'analysis' section of this chapter is neatly labelled and separated and much of the content here will focus on steps and procedures I followed in a specific period after data generation, I agree with Spencer et al. in the above quote – data analysis is interwoven through the entire research process.

As we saw in the separate methods sections, spending five months in Bukoba and seeing participants regularly, meant an early iterative approach to data generation and analysis was possible. Ongoing reflection and mental processing of new data meant that as particular ideas took shape and initial themes were generated, I could redirect and explore areas of growing interest such as children's responsibilities at home, or private tuition. Listening to recorded interviews and following up with RAs for further detail and discussion of Kiswahili sections is another example of ongoing analysis in Bukoba; working across languages adds to the layers of interpretation and analysis (Tao, 2013). In this section, however, I will focus on the 'formal' analysis processes (Spencer et al., 2014b) I used after leaving Bukoba.

The data analysis in this study can be seen as a form of thematic analysis (TA) (see Braun and Clarke, 2006, Spencer et al., 2014a), or as Braun and Clarke recently revised their approach 'reflexive TA' (2019). The themes that are produced, hold the answers to my questions of participants' perceptions and experiences as they are "patterns of shared meaning" (Braun and Clarke, 2019, p. 593). TA should not be seen as a prescriptive procedure to follow; it allows flexibility and lends itself well to creative approaches with data in multiple forms from multiple sources. However, Braun and Clarke (2019) point out that their own reflexive TA has crucial underpinning principles and assumptions that should inform its use. Central to their approach is the researcher's cognisant role in the production of knowledge, for example, through the consistent, transparent and thoughtful application of theory and methods in line with epistemological principles. The themes in TA do not simply 'emerge' but rather are created, in a similar way to the 'carving out' of cases we saw earlier in CCS.

> [Themes] … are actively created by the researcher at the intersection of data, analytic process and subjectivity. Themes do not passively emerge from either data or coding; they are not 'in' the data, waiting to be identified and retrieved by the researcher (Braun and Clarke, 2019, p. 594).

The processes I followed demonstrate these characteristics and can be divided into four main steps, which overlap with those laid out in the two main texts I found most useful in guiding this stage. A rough mapping of these steps or phases are shown in Table 20 and in the brief account below I attempt to capture some of the "creative labour" and "continual bending back on oneself – questioning and querying" (Braun and Clarke, 2019, p. 594) that were involved in the coding and analysis processes. I use numbering and ordering, suggestive of a simple linear progression, to impose structure for communication purposes. However, the processes were iterative and at times, messy.

Table 20 - Steps of analysis mapped to guiding references

Steps/ phases	Braun and Clarke (2006)	Spencer et al. (2014a)	Me
an iterative process	1. Familiarising yourself with your data 2. Generating initial codes 3. Searching for themes	1. Data management: familiarisation, labelling and sorting data	1. Data management, familiarising, labelling and sorting
		2. Data summary and display	2. From themes to trajectories: modelling, playing and abstraction 3. Producing pupil stories-so-far (case studies)
	4. Reviewing themes 5. Defining and naming themes	3. Abstraction and interpretation: description; developing categories; mapping linkage; explanation	
			4. Further abstraction, interpretation and writing: defining and naming trajectories; mapping relations, negotiations and effects
	6. Producing the report		

Stage 1. Data management, familiarising, labelling and sorting

The initial data management steps were key to familiarisation with the data. This mainly involved sorting, reviewing and naming files and documents, transcribing audio data into Word documents, and typing up and summarising written notes. In line with the priorities laid out earlier in this chapter, the transcriptions included the messiness of the three-way meaning-making process with the RAs, keeping them visible throughout. They also included my commentary and reflections. All final transcriptions were in English with only occasional 'key' words retained in Kiswahili. At an early stage I had decided to

use computer-assisted qualitative data analysis software, NVivo, to help facilitate formal analysis since it would allow me to hold the wide range of types of data in one searchable place, create NVivo 'cases' for each participant, school and club, enable multiple cycles of coding and 'bending back', support cross-case analysis and offer other analytical and visualisation tools. All data were uploaded in digital formats apart from detailed handwritten fieldnotes and classroom observation notes. A further level of familiarisation came through writing the first draft of the methods sections of this chapter, requiring me to go through all fieldnotes to support reflection.

These familiarisation processes led to the initial thematic framework; a set of categories and sub-categories (using NVivo's hierarchies of nodes), largely based on the main data generation questions and prompts. This was a way of setting up a framework to classify data, so that data that look and feel alike are grouped together (Saldaña, 2015), for example all data related to *'what helps learning in the classroom'*. Before coding on NVivo several iterations of the framework were used with Word documents to refine and reorganise categories and sub-categories and add new ones for data that did not 'fit'. This was the beginning of the 'hybrid' approach (Fereday and Muir-Cochrane, 2006) which uses, and encourages a combination of inductive and deductive coding and theme development. At this early stage, issues of 'school choice', for example, stood out in the data but did not fit neatly into codes based on top-down categories. This approach ensured there was room for both. Visualisation aided this stage and I moved back and forward between NVivo and diagrams on paper (see Figure 32 for mind-map of initial thematic framework showing categories, sub-categories, example codes and 'emerging areas').

Figure 32 - Mindmap of initial thematic framework

Using this 'initial thematic framework' two cycles of descriptive coding, or 'indexing' (Spencer et al., 2014b) were completed on NVivo, with significant revisions made to codes and descriptions for each of the sub-categories to act as a guide for applying the codes. I used a combination of 'lumping and splitting' to further classify the data: "lumping gets to the essence of categorizing a phenomenon, while splitting encourages careful scrutiny of social action represented in the data" (Saldaña, 2015, p. 24).

Stage 2. From themes to trajectories: modelling and playing

The descriptive coding processes occurred in parallel with further development of my spatial approach. The divisions of home and school in the initial thematic framework were useful for indexing but to move on to abstraction and interpretation I needed to start looking at the commonalities, differences and importantly the porous boundaries between places. The idea of analytic 'themes' as Massey's 'trajectories' (2005) took hold and I added sub-questions (a -b) to the overarching research questions (1-2), based on the production of space. I include my guiding analytical prompt questions below too (see i-iv).

1. How do primary teachers and pupils perceive and experience in-school, home and neighbourhood learning spaces?

    a. How are these spaces produced?

       i. What trajectories are identified in the school/classroom/ home/ neighbourhood? i.e. What trajectories do participants (and I) perceive and experience?

       ii. What are the relations between these trajectories? How do they interact with other trajectories? How does it differ across different spaces?

       iii. What kind of spaces do these trajectories and their interactions produce?

       iv. How are these bundles of trajectories contributed to and negotiated by the people in those spaces? How are they negotiated differently in different spaces?

    b. What are the implications and opportunities for learning in these spaces?

2. What are the implications of all this for pedagogy?

My questions for interrogating the trajectories in my spatial model are similar to Braun and Clarke's for themes:

'What does this theme mean?' 'What are the assumptions underpinning it?' 'What are the implications of this theme?' 'What conditions are likely to have given rise to it?' 'Why do people talk about this thing in this particular way (as opposed to other ways)?' and 'What is the overall story the different themes reveal about the topic?'(2006, p. 94).

For this part of the analysis, I stepped away from NVivo and created a physical model to visualise and explore space, place and trajectories. Using the physical model shown in Chapter 4, I played with the data, creating models of home and school and simulating versions of *throwntogetherness* and the trajectories and negotiations taking place (see Figure 33). Creativity here, allowed me to "creat[e] something from elements that already exist by putting them together in a new way" (Kara, 2015, p. 28).

Figure 33 - Playing with themes as trajectories

I identified multiple trajectories, some reflecting and consolidating the key ideas in Chapter 5, e.g. curriculum, fee-free education, and others from the data, such as 'shared responsibly', and started tracing the relations between them and the social effects their interaction produced. These would become codes and categories in the next cycles of interpretative coding on Nvivo (see Appendix 9 for an example of themes and trajectories on NVivo).

Stage 3. Producing pupil stories-so-far

At this stage it became clear that the rich detail and insight into children's experience of daily traversing home, neighbourhood and school would potentially get lost if the data was fragmented into 'cross-cutting' themes or trajectories. Before continuing with NVivo interpretative coding according to trajectories across the whole dataset, I created new NVivo categories and collated data for five pupil participants under:

- family background,
- at home and in the neighbourhood
- at school
- in the classroom
- school-home journey
- pupil as a research participant

(See Appendix 10 for an example of a coded go-along transcript for a pupil story-so-far on Nvivo).

Together with classroom observation data for the 'in the classroom' category, I developed five pupil case studies or 'stories-so-far', three of which are presented in Chapter 8. Through writing these, I identified and prioritised initial categories and codes for Stage 4, recalling Massey's words about trajectories:

> We cannot recount them all … there will be a prioritisation, a selection, perhaps reflecting actual practices of relationality (Massey, 2005, p.80).

Stage 4. Abstraction and interpretation

Spending a sustained period very close to pupil data in Stage 3 was instrumental in the review of my 'analytic strategy' (Spencer et al., 2014b) for the final stage of formal analysis. For example, I became aware that the lack of *in vivo* codes in my initial descriptive coding meant that I was prioritising my paraphrasing and summaries over those of the participants and was beginning to move away from their original meaning. I decided to prioritise *in vivo* codes at the next stage, especially when dealing with children's data "to honour children's voices and ground the analysis in their perspectives" (Saldaña, 2015, p.71). The spatial analytical prompts and explorations from Stage 2, and prioritised trajectories from Stage 3 enabled me to return to NVivo and start the massive re-ordering and classifying of data as I moved from descriptive to interpretative coding, again leaving room for new categories especially through *in vivo* coding. 'Shared responsibility', for example, was an NVivo category at the beginning of this cycle, but its relation to 'togetherness' was explored in more depth through the *in vivo* coding of data such as: *work together, learn together, play together, grew trees together, farm together, walk home together, Are we together?*.

Through a further three cycles of coding and review, the trajectories presented in Chapters 9 and 10 were finalised. I moved back and forward between NVivo and paper for the more complex tasks of mapping relations between trajectories, analysing how they were negotiated and what the social, learning and pedagogical effects were. The preface to Chapters 9 and 10 gives more detail about the final selection and representation of trajectories.

Overall limitations and reflections on methodology

The multiple-methods approach taken in this study has allowed the participants, RAs and I to generate high-quality data leading to useful insights. This will be elaborated on in the conclusion as I see it as a key contribution of this study. However, there were certainly limitations and things I would do differently.

First, there were missed opportunities to extend data generation activities to other relevant adult participants in light of emerging themes. Perspectives from school inspectors or SQA officers, parents and tuition teachers could have led to further useful insights. Secondly, trying to sensitively manage relationships and time demands on the liaison teachers meant I was not as involved in the selection of children participants as I should have been. Having more control over this selection could have resulted in inclusion of children from dense central urban areas, living in rented accommodation, and lent another layer of comparison to the analysis. Next, although the input and relationships with the RAs add value to this study, I am aware of the data that was lost because of my lack of proficiency in Kiswahili. One final related reflection considers my novice researcher status. I hope that with experience, I will become more able to respond and adapt to local conditions 'on the hoof', with a fuller understanding of how to navigate procedural ethics and local ethos.

Overall, the qualitative, reflexive approach I took to planning and carrying out this study serves as a good example of "a blend of empirical investigation and creative discovery" (Ritchie et al., 2014, p. xxiv).

Chapter 7. Kagera, Bukoba, Mpya and Zamani primary schools

In this chapter, by gradually 'zooming in' on specific places: Kagera region, Bukoba town and the case schools, we will see how they are tied into the wider national and global relations introduced in the previous chapters, and the very specific interactions that produce these distinct places. This chapter also builds on the initial descriptions of the case schools in *Chapter 6* by providing further details, for example of simple but important factors like 'buildings and people' (Alexander, 2000). I include a separate comparative focus on learning outcomes and school catchment areas, looking at the neighbourhoods the schools serve. The chapter finishes with details of the participants from each school who were involved in the study.

Geography, history, demography and change

The municipality of Bukoba is the regional headquarters of Kagera region, situated in north-west Tanzania (see Figure 34). Kagera is distinctive as it shares borders with four other African countries: Uganda, Rwanda and Burundi by land borders, and Kenya across Lake Victoria. It is one of the four regions that sits on the shores of Lake Victoria. Kagera also has land borders with two other Tanzanian regions: Kigoma and Geita.

Map has been removed due to Copyright restrictions.

Figure 34 - Map of Tanzania showing Regional Administrative boundaries. Source: NBS (2018)

This map helps to keep a few important issues in mind. In several parts of this thesis I look at relationships between state, regional and local factors or 'tracing across scales' (Bartlett and Vavrus, 2017c), and certainly the influence of government, based in far-away Dodoma, and the economic capital of Dar es Salaam is significant. However, Tanzania, like many African countries, took its current shape in the late 1800s, when most of the borders recognisable today were delimited (Vavrus, 2015). The Haya people, one of the largest ethnic groups in Kagera region, and the predominant group in the Bukoba area (Githinji, 2011) are part of the *interlacustrine* region which covers the Great Lakes areas in Tanzania, Uganda, Rwanda and Burundi (Weiss, 1997) and share cultural heritage across these 'arbitrary' borders. Studies have shown, for example, that unique Haya farming practices are between 300 and 600 years old (Githinji, 2011). It is useful to remember that Tanzania's first Education Act, in the form of *Education for Self-Reliance*, was introduced just over 50 years ago, and while it, and the subsequent acts and policies, have had significant influence on school and classroom practices, their legacies are relatively new compared with other local, cultural influences which span generations and state boundaries. This reminds us of the "fluidity and porousness of space" (Farrugia, 2018, p.9) and that national policy or national ideas of culture, society and identity are *a* source of influence but that there are many messy influences to untangle.

Kagera region and Bukoba town

Kagera region is relatively well represented in research literature in a range of fields covering migration, agriculture, poverty, refugees, HIV, orphanhood and maternal health. To help paint an initial picture of the region, it is variously described as: "remote" and "one of the poorest regions" (Maystadt and Duranton, 2019, p.302); "the least urbanised region" (Muzzini and Lindeboom, 2008, p. 12); "politically stable and mostly rural" (Nacken et al., 2018, p.506); and "an agricultural rural area" (Cooper et al., 2019, p.3). Studies on health-related issues seem to dominate (based on Google Scholar searches) and there has been little attention paid to teaching and learning in rural primary schools (see Wedin (2010, 2005) for exceptions to this) and none to urban schools in Kagera.

In terms of population, Kagera is one of the six fastest growing regions in Tanzania (NBS, 2020). The population increased from around 1.8 million in 2000, to over 3 million in the census-based projections for 2018 (NBS, 2020). Although Kagera is growing, other data has shown it to be one of the regions with the lowest levels of urbanisation at 6%; the national average is 22.6% (Wenban-Smith, 2015). However, a 2008 report on internal migration in Tanzania, showed Bukoba to have the highest positive net migration of any of the 26 regional headquarters in mainland Tanzania (Muzzini and Lindeboom, 2008). This is attributed mainly to rural – urban migration from within Kagera region (66%). Bukoba Municipal's population growth between the 2002 and 2012 Census went from 80,868 to 128,796, a growth rate of 59% (URT, 2018). It is the smallest of the eight Local Government Authorities (LGA) in Kagera (see Figure 35), both in terms of size and population, however it is by far the most densely populated (URT, 2018).

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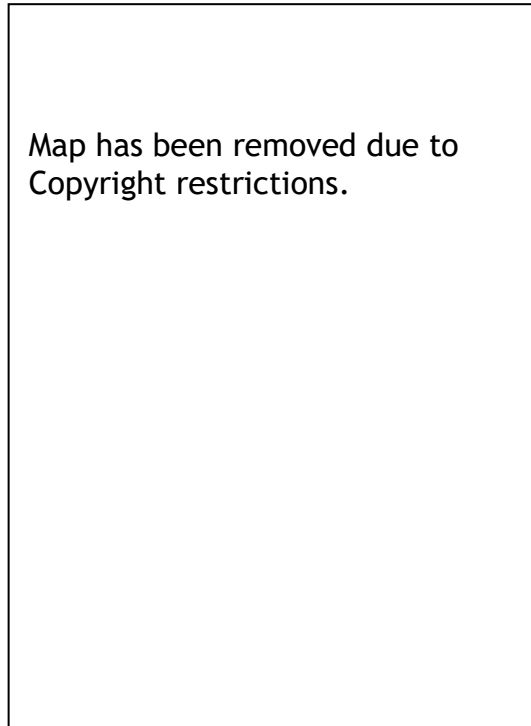
Figure 35 - Map of Kagera Region showing district boundaries and highlighting Bukoba Municipal Council. Source: URT (2018)

In line with Kagera's rural characteristics outlined earlier, and the strong rural-urban links through in-migration, the main source of income for Bukoba Municipality residents is sale of food crops, which is double the income from waged employment or business income (URT, 2018).

All Kagera regional and municipal offices are located in Bukoba, including the High Court and migration offices. Several key landmarks in the town are places of worship, such as the Evangelical Lutheran Church of Tanzania which has been in Bukoba since 1910, a newly completed, towering Catholic cathedral and two central mosques. These buildings reflect the largely Christian and Muslim population. There is also a large government hospital, a busy central market, a football stadium, a bustling bus station, a run-down library, a post office and a number of national high schools, banks and hotels. The ferry terminal, slightly out of the town centre on Lake Victoria, was out of use as the main Bukoba Mwanza ferry was grounded for refurbishment in 2014 (the new MV Victoria, 'Hapa Kazi Tu' (*Just work*) was launched in August 2020).

To give the reader a sense of the town, the series of photographs in Figure 36 are stills from videos recorded as I travelled by *pikipiki* from Mpya back to the town centre. I have tried to capture a still at roughly every 5 seconds. These serve as snapshots of Bukoba town as I "[speed] across ongoing stories" (Massey, 2005, p.119).
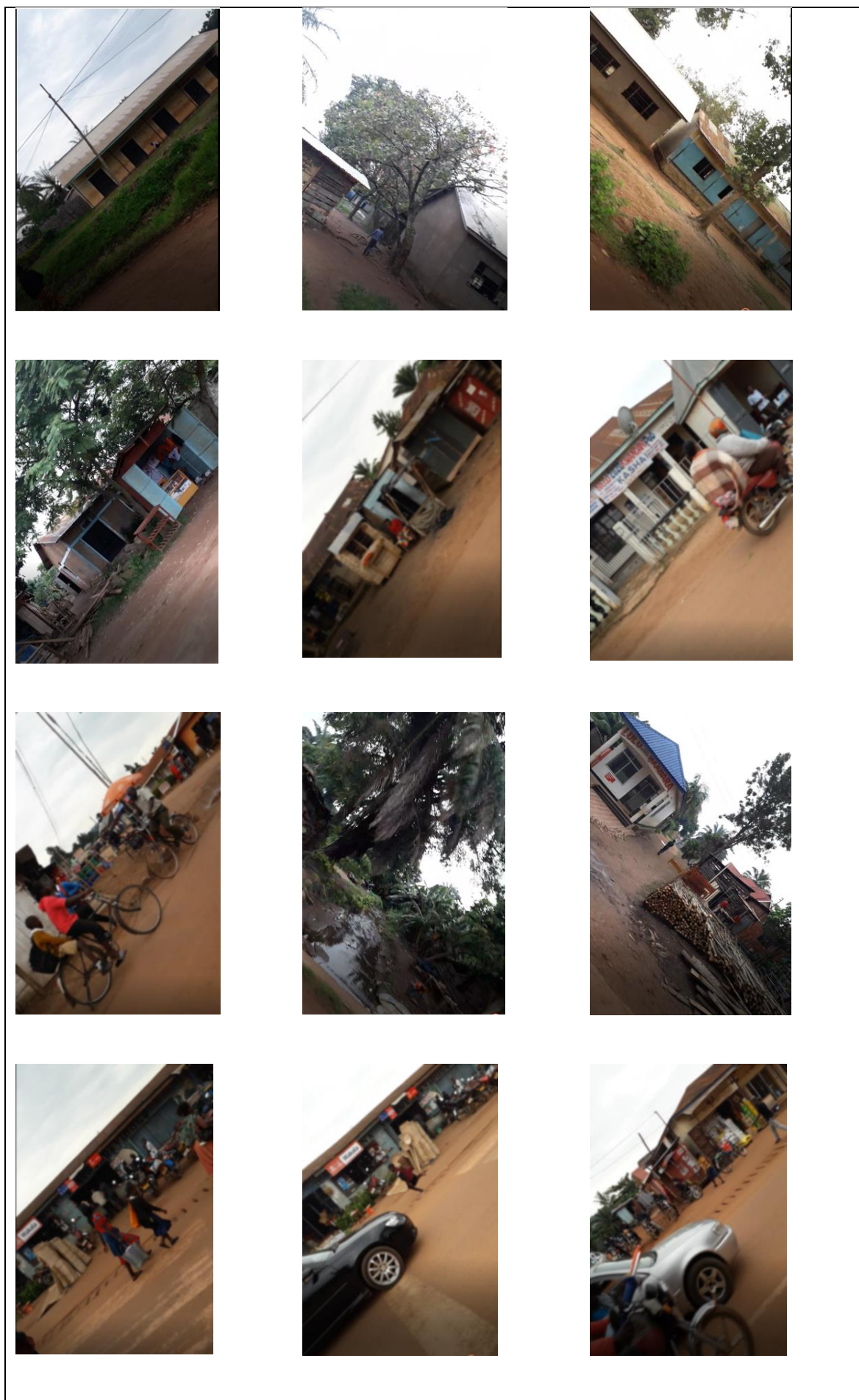
Figure 36 - Snapshots from a journey across Bukoba town

Bukoba Municipal is divided into 14 wards (see Figure 37) and each ward is further divided into *mitaa*[12], which are the smallest administrative units, each with its own Executive Officer and Secretary. Each school is supposed to enrol pupils from its designated *mitaa,* though these 'catchment areas' are not strictly adhered to.

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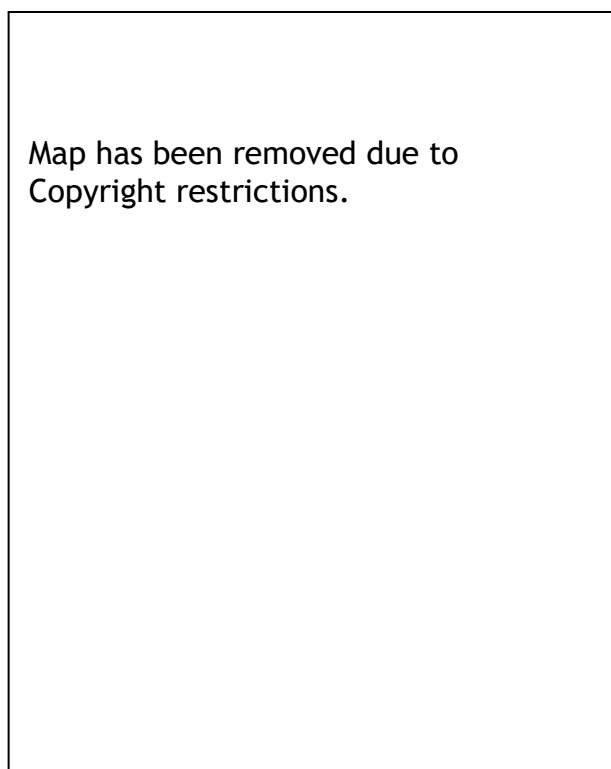
Figure 37 - Map of Bukoba Municipal showing wards and boundaries. Source: URT (2018)

Eight wards are regarded as 'greenbelt' wards and six are in urban centres (URT, 2018). Both case schools are in urban centre wards; Mpya in Kashai, and Zamani in neighbouring Miembeni ward. Figure 38 shows a view from the greenbelt area of Kibeta, looking down to the urban centre wards. Miembeni can be identified by the tall Cathedral tower slightly to the right of centre.

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[12] *Mtaa* (singular) and *mitaa* (plural) are often translated into English by Tanzanians as 'street(s)' but this is not the same usage as 'street' in British English. A closer equivalent might be 'neighbourhood'. I will use the Kiswahili *mtaa / mitaa* in this thesis.

Figure 38 - Photograph looking down on Bukoba's urban centre wards from Kibeta 'greenbelt' ward.

The largest ward is Kashai with a 2012 population of 30,791, growing from 17,612 over a ten year period from 2002 to 2012 (URT, 2018). It is also the second most densely populated ward. The three wards with the highest percentage increases (over 100%) are in greenbelt areas: Kibeta, Kagondo and Kahororo. Whereas the change in the town centre wards has been minimal, when walking around these greenbelt wards, you frequently see evidence of construction on new plots, and Google Earth aerial photographs captured between 2003 and 2020 clearly show this outward expansion into the surrounding countryside (Figure 39 and Figure 40).

Figure 39 - Bukoba Town, aerial photograph, 2003

Figure 40 - Bukoba Town, aerial photograph, 2020

Primary education in Kagera and Bukoba

At the time of this study in 2020, there were 42 primary schools in Bukoba Municipality: 23 government schools and 19 private schools (NECTA, n.d.). Private schools are consistently the top-ranking schools in PSLE results (NECTA, n.d.). Only seven of the private schools in Bukoba were classified as having more than 40 pupils sitting the PSLE whereas all government schools were so classified, making a total of 30 in this category. In 2020, of the top ten schools in Bukoba (with over 40 PSLE candidates) the first seven were the private schools (NECTA, n.d.).

The average Pupil Teacher Ratio (PTR) recorded in Bukoba Municipality in 2015 was 36, with the highest being 48 (URT, 2018), sitting very close to the national recommended PTR of 45. This does not represent the reality in the classroom since, in 2017, there was a deficit of 151 classrooms in the municipality, making the average Class Pupil Ratio (CPR) 66, with the highest, of 96, in Kashai (URT, 2018).

Mpya Primary School

Introducing Mpya primary school:
Rhona, Grace (a Mpya pupil) and Hereneus discuss how it feels to be a pupil at Mpya during a go-along.

Rhona:	So how does she feel when she tells people that she studies at Mpya primary school?
Grace:	…
Hereneus:	She feels good because she likes so much her school. She is prouding [sic].

Mpya became a public school in 1970. It was founded by its Lutheran owners in 1966 and handed over four years later as part of independence and nationalisation of public services. It was originally located very near the town centre. About 50 years later, Mpya and 41 households were identified in the category of *Project Affected People* in the upgrading of Bukoba Airport which started in 2008. Funded by the Government of Tanzania and the World Bank, the project included the lengthening and upgrading of the runway as part of key

infrastructure interventions in the government's development plans (URT, 2016). This necessitated, for safety reasons, the relocation of Mpya to a new site in Mafumbo *mtaa* on the outskirts of Kashai ward. In anticipation of the move, Mpya reduced pupil registration for Std 1 in 2015 and 2016. As a result, the current Std 5 and Std 6 classes have only one stream compared with two streams for all other Standards. The new Mpya opened in February 2017.

Approaching Mpya as a visitor, two years after it opened, its newness is still striking. A high wall, with alternating stone towers and metal railings, referred to as *a fence* by staff, runs around the school compound. On entering the school grounds, you see the hard earth parade ground with flag poles which doubles as a play area as there is no separate sports ground. The site is smaller than the original one and teachers and pupils comment on the lack of space for a proper sports field. Three flagpoles, the centre one flying the national flag, stand in the middle of a small well-tended garden of green shrubs, leafy plants and flowers. Directly behind this is the administration building. A teachers' office, the academic office, and the head teacher's office are housed here. On the right side of the parade ground, are the three Special Educational Needs (SEN) classrooms and facilities, including dedicated SEN pupil toilets and a kitchen and small canteen. Pupils' *uji* (*porridge)* is made here every day as well as other meals for the SEN pupils. The buildings on all three sides of the parade ground have flower beds with shrubs and flowers, and the hard ground is swept at least once daily and cleared of any litter.

Mpya has 19 classrooms: three for SEN classes, 12 are used for Standards 1 to 7, one for *awali* or pre-primary and three are unused, or used for additional storage. In addition, the Teachers' Resource Centre (TRC) for Bukoba Municipality is accommodated in a classroom-style office in the *awali* block, as well as the official school store. The WEC's monthly report states that they have an existing shortage of 7 classrooms. There is glass in the classroom windows as well as the standard metal bars that typical schools have. The classrooms also have a ceiling rather than just a metal roof, which makes it less noisy when it rains heavily. There are several rows of fluorescent strip lights on the ceiling. The walls are bare and the front walls are taken up by the blackboard. The desks are arranged in rows facing the board.

Figure 41 shows the school layout and is annotated with the numbers of pupils[13], with extra detail for Standards 3 to 7, the focus of this study, with streamed classes indicated by A and B. It also shows the number of teachers timetabled to teach each class over one week, to illustrate who shares each classroom space and how many different teachers pupils interact within over one week.
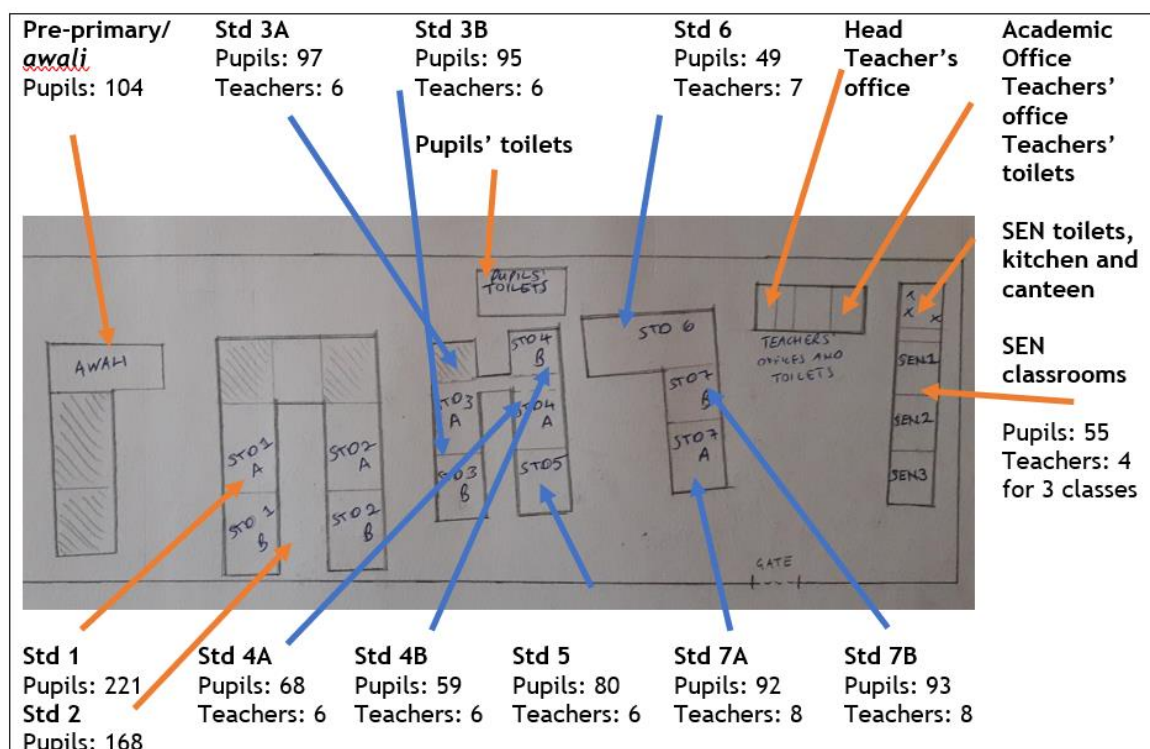
Figure 41 - Annotated Mpya Primary School layout with class-size and number of teachers for each class

There are 18 flush toilets for pupils and 3 for teachers. There is one teacher's house within the compound and Erick, the visually impaired teacher and a participant in this study, lives there with his family.

The school has a total of 1181 pupils and 25 teachers, 19 women and 6 men. There are also 2 or 3 volunteer teachers: teachers who have qualified but are unable to find employment so are helping with teaching and other duties and are paid a small amount from teachers' contributions, or from conducting extra tuition classes. There are also teachers who are away on study or sick leave. As a result, in Standards 3 to 7, the focus classes for this study, there is a PTR of 79:1. Standards 3,4 and 7 are divided into two streams, each taught in a

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[13] Pupil numbers are based on school registers.

different classroom. Standards 5 and 6 are single stream due to the reduced enrolment around the time of the school relocation. Pupils sit two or three to a desk in the larger classes but in the smaller classes two is the norm and there are several empty desks.

Zamani Primary School

Introducing Zamani primary school:

Rhona, Happy (a Zamani pupil) and Hereneus discuss how it feels to arrive at Zamani in the morning.

Rhona:	How does she feel when she arrives at school in the morning?
Happy:	…
Hereneus:	She feels happy because she meets her friends … She enjoys because she knows that when she comes to school, she will know new things.
Rhona:	Every day?
Happy:	Yes!

Zamani shares its entrance road with the neighbouring convent, a clear link to its Roman Catholic origins; it was founded by the Roman Catholic Church in 1960. Like Mpya, it became a government primary school under the nationalisation project, opening as a public school in 1974. The land still belongs to the church and any changes need to be given permission by the Bishop. In addition, until recently, it was common for the head teacher to be a Sister from the Convent, a strategy which helped maintain a good relationship between government officials and the church, and was said to add to their reputation for discipline[14]. The grand Bukoba Cathedral is just two blocks away. The Municipal offices and the regional police headquarters are two minutes' walk from the school. Zamani is in a very central Bukoba location.

A row of small shops lines the left side of the entrance road to the school and convent. One of them is a stationery and photocopy shop which the school uses

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[14] 'Discipline' is generally talked about very positively but during discussions to inform school selection, one contact referred to a past head teacher at Zamani as 'a vicious nun' showing another side to the church reputation.

for any printing and copying needs. As mentioned in Chapter 6, Zamani is distinctive from other Tanzanian government primary schools as the main building has two-storeys. Now, there are signs of its age and the outer walls have become discoloured and stained and the metal roofs are rusting and let in rain water during the rainy season. The grounds are well-kept though and the regularly-swept and cleared parade ground is surrounded by small islands of grass and shrubs with trees in the middle where pupils gather to rest, chat and play at break time. Around the back of the school, there is another large play area and the 'playing field', a part hard earth/ part grass area demarcated from the other grounds by a low hedge and white painted rocks. Although there are only two school buildings, making it much smaller than Mpya, the grounds are significantly bigger than those of Mpya.

Zamani has 9 classrooms, six in the main building, and classrooms for Standards 1 and 2 in a second, one-storey, smaller block. The WEC's monthly report states that they have an existing shortage of 13 classrooms. The classroom layout is similar to Mpya but more cramped. The walls have become quite grubby and the paint is beginning to peel. There are 15 pit latrines for pupils' which are set back from the main buildings and play ground. The teachers' latrines are downstairs in the main block. Neither have running water. Near the edge of the school grounds, there is a small corrugated metal shack which serves as the kitchen where *uji* is made for paying pupils every day. The head teacher's office is on the ground floor of the main building opposite the school store and small library. Two small teachers' offices and a small nook for preparing *chai* and washing up are upstairs.

There are 858 pupils in Standards 2 to 7[15] and 19 teachers; 16 women and 3 men. Figure 42, helpfully drawn by a member of Zamani Activity Club, shows the number of pupils in Standards 3 to 7, along with the number of teachers they encounter across all curriculum subjects each week.

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[15] The information was incomplete for *awali* and Standard 1 on both class register and the WEC report that I had access to.
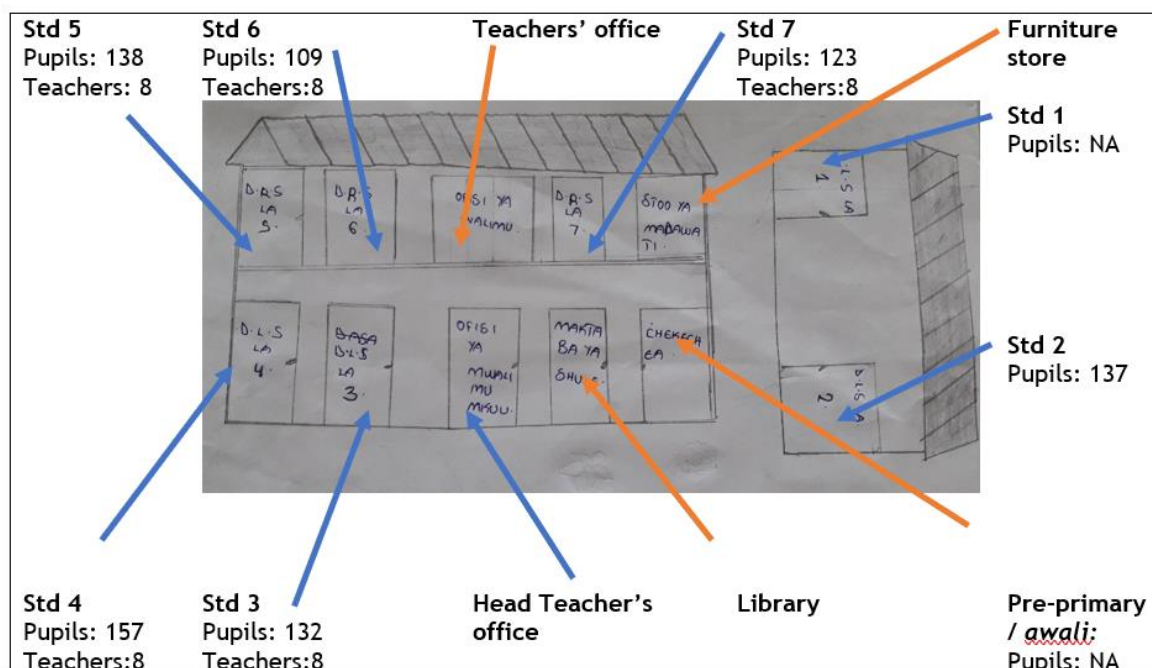
Figure 42 - Annotated Zamani Primary School classroom layout with class-size and number of teachers for each class.

The PTR for Standards 3 to 7 works out at 132:1, significantly higher than at Mpya (79:1), which is not surprising as they have half the number of classrooms. Pupils sit three to a desk in all classes and this becomes increasingly cramped as the pupils get older and larger.

Learning outcomes

As mentioned in Chapter 6, good academic performance in PSLE was one of the criteria that contributed to the selection of the two case schools. Since 2015 Zamani has been reasonably consistent in terms of school ranking in Bukoba Municipal. The total number of schools change over time, as does the categorisation used by NECTA, however, Zamani has ranked between first and fifth for the last six years in Bukoba government primary schools (See Figure 11 below).
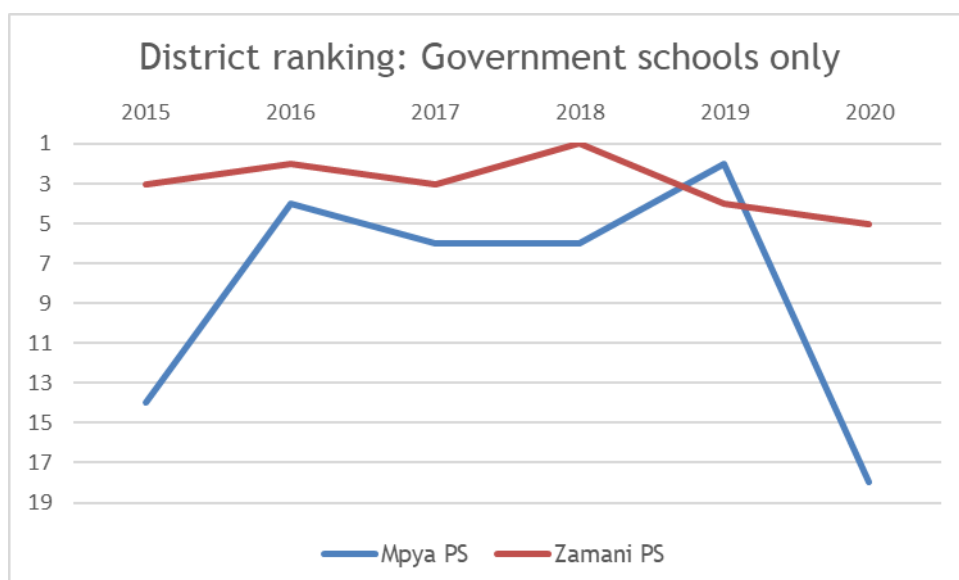
Figure 43 - Trends in case school ranking among Bukoba Municipal government schools, 2015 – 2020. Source: NECTA (n.d.)

The actual PSLE average score for Zamani PSLE candidates, out of a total of 200, has steadily increased between 2015 and 2020, from 135 to 155 (See Figure 44), showing that higher scores do not correlate with higher rankings year on year.
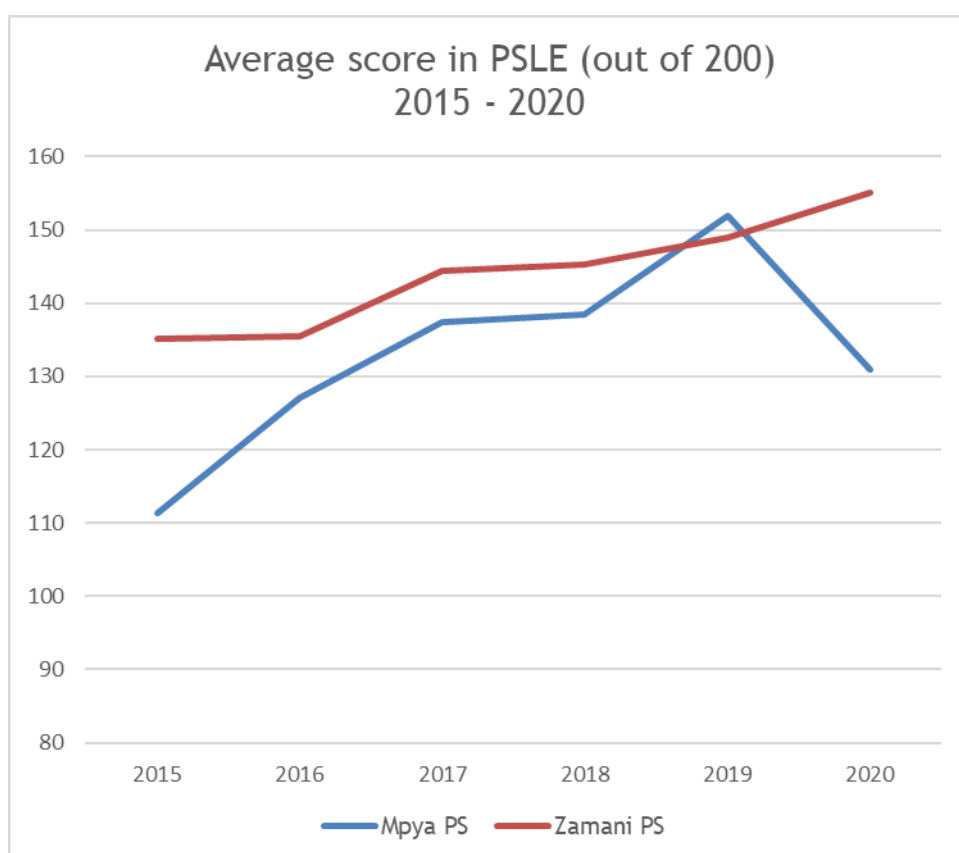
Figure 44 - Trends in average PSLE scores in case schools, 2015 – 2020. Source: NECTA (n.d.)

Until 2020, Mpya was also demonstrating improvement in average PSLE scores, with a steep improvement between 2015 and 2017 which resulted in them winning an award for "most improved school", in 2017 (see Figure 44). However, PSLE scores and district ranking have both plummeted in 2020, falling from second best government school in 2019 to 18th in 2020 (see Figure 43 and Figure 44). Since this period falls after data generation was completed it is hard to determine the possible causes. All schools were undoubtedly affected by the three missed months of schooling between March and July due to COVID-19, so that alone is unlikely to account for the deterioration as other schools have maintained or improved their scores and ranking. Other factors such as changing leadership and the socio-economic conditions of pupils' families could be considered here, but this is speculation. If I had only used MoEST data up until 2019, this study could have stood as a comparative case study of two high performing government school so this 2020 data serves as a useful reminder of the lack of fixity in the school space and highlights Massey's assertion that space, as a product of relations, is always in the process of being made and is never finished (Massey, 2005). The findings presented here shed light on space as a "simultaneity of stories-**so-far** (my emphasis)" (Massey, 2005, p.9).

School choice and catchment areas

Mpya is one of three government primary schools in Kashai ward and Zamani is one of two in Miembeni (shown in green and purple respectively in Figure 45 below). I did not have access to enrolment data for the two case schools so the information presented in this section is based on the pupil participant data only. I make no claims of representativeness but offer this as a snapshot of school choice for pupils and their families. Figure 45 shows the spread of pupil participants' home wards in relation to their school ward. The home wards of Mpya boys (♂) and girls (♀) are shown in green squares and Zamani boys and girls are shown in purple squares.

Figure has been removed due to Copyright restrictions.

Figure 45 - Map of wards with pupil participants' home wards. Source: adapted from URT (2018)

Mpya pupils should come from Rwome, Mafumbo or Katatolwanso *mitaa* in Kashai ward. Of the 12 Mpya pupil participants I have data for, all but one of them live in the same ward as they go to school in, and half of them live in the official catchment area / *mitaa*. For all but one of these pupils, they attend a local, ward school. In contrast, at Zamani in Miembeni ward, which officially serves two *mitaa:* Pwani and Jamhuri, only one of the eight pupil participants lives in the catchment area and in the ward. He lives in government housing for district officials. Half of the children live in Buyukera *mtaa* in Bakoba ward. In 2016, around the time the younger ones would have been enrolling in primary school, the government primary school in Buyukera *mtaa* ranked 21 out of 23 government schools for PSLE results, and Zamani ranked third. The remaining three participants live in three different wards. For one of these pupils, Susan, walking home involves passing four other different government primary schools, and for Emmanuel, he passes three.

I reiterate, these pupils' journeys to school are by no means representative of the school populations but it is nevertheless striking that Mpya, for these pupils, acts as a local school serving the immediate local community, but for Zamani, the school seems to serve the wider municipality, and be carefully selected by parents. The reasons for this will be explored in the later chapters but this also raises interesting questions about the extent to which the schools are 'hubs' of their neighbourhoods.

The research participants

Following on from the participant selection section in *Chapter 6*, the next two pages introduce the participants who were involved in the study. I have included brief, factual information which sets the scene for the deeper discussions that will follow. School staff are introduced first (see Table 21 for Mpya and Table 23 for Zamani), then pupil participants (see Table 22 for Mpya and Table 24 for Zamani). The teacher and pupil participants who took part in multiple data collection activities and formed the 'core' group of participants are in rows highlighted in green for Mpya and purple for Zamani. Table 25 is included to introduce adult participants who did not work in either of the two case schools.

Mpya participants

Table 21 - Mpya Adult participants

	Name (pseudonym)[16]	Role	F/M
1.	Glory	Head teacher	F
2.	Jackline	Teacher	F
3.	Michael	Teacher	M
4.	Erick	Teacher	M
5.	Pius	Teacher	M
6.	Juma	SMC Chairperson	M

Table 22 - Mpya Pupil participants

	Name	F/M	Age	Standard (class)
1.	**Martha**	F	9	4
2.	Koku	F	10	4
3.	Julieth	F	11	4
4.	Herriet	F	12	5
5.	Litha	F	10	5
6.	Joviness	F	12	6
7.	**Grace**	F	12	6
8.	Edson	M	10	4
9.	Johnson	M	13	4
10.	Edmund	M	12	5
11.	**Oscar**	M	12	5
12.	**Julius**	M	11	6
13.	Salome	M	13	6

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[16] See Ethics Section in Chapter 6.

Zamani participants

Table 23 - Zamani adult participants

	Name	Role	F/M
1.	Editha	Head teacher	F
2.	Neema	Teacher	F
3.	Mary	Teacher	F
4.	Irene	Teacher	F
5.	Alice	Teacher	F

Table 24 - Zamani pupil participants

	Name	F/M	Age	Standard (class)
1.	**Susan**	F	12	6
2.	Vanesa	F	11	5
3.	**Happy**	F	11	6
4.	Rose	F	10	5
5.	Kaspet	M	13	6
6.	**Emmanuel**	M	11	5
7.	**Benson**	M	14	6
8.	Ruta	M	11	5

Table 25 - Other adult participants

	Name	Role	F/M	Highest qualification
1.	Baraka	DEO	M	PhD
2.	Jackson	WEC, Kashai	M	BA
3.	James	WEC, Miembeni	M	MA and currently doing a PhD

In terms of years of qualifications and experience, the Head Teacher at each school had more than 13 years of teaching experience and both had BA degrees. Zamani's Head Teacher was undertaking an MA at the time of the study. Five of the eight teacher participants had more than 14 years of teaching experience. All of the Mpya teacher participants were Diploma qualified, whilst at Zamani, two had BA degrees, and the others were either Diploma qualified or were

currently upgrading through a distance course. At each school, there was one teacher who had qualified and worked as a secondary teacher but was later forced to transfer to primary teaching to address a national shortage.

This chapter introduced the case schools to the reader by situating them in their neighbourhood, district, regional and national contexts. By highlighting school features including history, infrastructure, catchment areas and performance, I hope that the reader has started to see a sketch of Mpya and Zamani Primary Schools which will take on more detail as the findings are presented in the following chapters.

Chapter 8. Three pupil 'stories-so-far'

Introduction

Previous chapters have set the scene for the three pupil 'stories-so-far' which will be presented in this chapter. I have started to build a picture of the bundles of trajectories that produce the spaces of interest to this study. What we have not yet seen, and what is presented in the next three chapters, is how this *throwntogetherness* is perceived and negotiated by pupils and teachers in their daily lives.

This chapter presents three pupil case studies, or 'stories-so-far'. In Chapter 6 we saw the schools represented as the hubs of the cases. This chapter focuses on three individual pupils, two from Zamani and one from Mpya, and their perceptions, experiences and negotiations of home, neighbourhood and school spaces. Figure 46 depicts the shift here to the three pupils, traversing and negotiating home-school spaces, with the green and purple central circles representing the two case schools, the smaller circles indicating pupil homes and the arrows showing the home-school journeys.
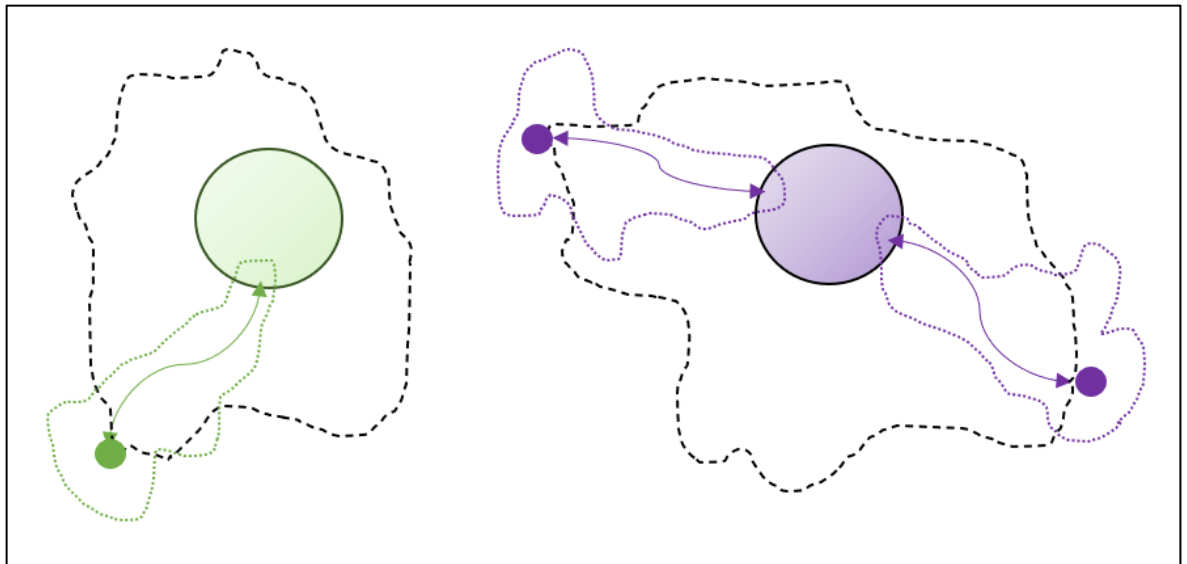
Figure 46 - Three pupil stories-so-far - negotiating trajectories between home and school

In-keeping with Massey's relational space, I am presenting these as pupils' *stories-so-far,* recognising that each child is not just present in a place such as the home or classroom, or traveling across flat static space on his or her

journeys to and from school, but that each has their own story-so-far, and contributes in some small way to the production of space. Their stories are part of the messy interplay that produces home and classroom space. In addition, just as space itself is continually "under-construction" (Massey, 2005, p. 9), so too are the children's stories unfinished, leaving space for multiple possibilities; not corralling them all onto one linear path with one fixed destination.

Constructing the pupil stories

The three pupil stories-so-far have been constructed by building together data from multiple activities over the 5-month fieldwork period. Each story-so-far follows the same structure, starting with an introduction, including brief family background, the pupil at home and in the neighbourhood and then the pupil at school. The pupil's story then moves into the classroom and there is a description of a lesson he/she attended. In these descriptions, the lesson activities and interactions are detailed. However, the pupil is subsumed into the body of the class and does not get specific attention in the lesson description. This is partially the result of the observation data generated. I did not know when I observed the lesson that I would be focussing so much on that particular pupil participant and so observed the class in general; the 'carving out' of these stories came later. However, this temporary 'suspension' of the pupil's story also reflects the shift in behaviour that occurs when negotiating the classroom space, undoubtedly the space and time most strongly associated with formal pupil learning. The pupil's story-so-far resumes after the lesson, looking at his/her school-home journey and the pupil as a research participant.

The content of these stories and the wider analysis and discussion in Chapters 9 and 10 are the results of an iterative coding and abstraction process. The decision to present these stories-so-far, and to present them before the wider analysis, stems from the desire to see the whole child, or at least to balance out the fragmentation which occurs in the later thematic analysis. Likewise, the detailed descriptions of three lessons here is a way of "complementing the increasing atomization of teaching with a convincing kind of holism" (Alexander, 2000, p.271).

Pupil stories-so-far are presented for three of the eight core child participants: Emmanuel and Happy from Zamani, and Julius from Mpya. Although I maintained awareness of the genders, Standards, family and home neighbourhoods of these pupils while working through the analysis and selection process, it was the cumulation of rich illustrations of the themes within each pupil's story that led to the final selection. Similarly, the lessons have been selected, not because they represent typical lessons, although there are many commonalities across lessons, but because each of them offers excellent illustrations of the competing demands and trajectories in the classroom space, the different ways that teachers negotiate them, and the implications for pupils. In the final discussion and conclusion section at the end the chapter, I will draw out the themes and trajectories which will be looked at in more depth in chapters 9 and 10.

Emmanuel's story-so-far

Introducing Emmanuel

Emmanuel is 11 years old and is in Standard 5 at Zamani. He was born in Bukoba town and lived with his family in a rented house until he was 5. Then, when his father got enough money, they bought a plot in Nshambya ward and built their home. He lives there with his mum, dad, little brother, who is in Standard 1 at Zamani, and baby brother. His dad is a metal worker. Emmanuel takes his studies seriously and works hard at school as well as going to tuition after school five days a week. He also loves drawing and playing football. When he grows up, he would like to be a professional artist or a pilot.

Emmanuel at home and in his neighbourhood

Home is one of the places that Emmanuel likes best because "when I'm at home I'm free to study, play, work without any problem". He mainly spends his time at home helping with chores and farming on their *shamba* (family farm), drawing, playing football and doing his own self-study for school subjects. He also regularly visits his grandmother in the village.

He really enjoys drawing: "I feel happy because I can draw things and then see myself that I have done it well". He believes it is his natural talent and that if he works hard, whilst not forgetting his talent, then maybe one day he can make

money from his art. Apart from sometimes drawing diagrams and pictures in science, drawing is not taught at school, "because there is no relationship with the other subjects". His mother helps him and encourages him in his artistic talents.

Emmanuel also loves playing football. He asked his mother to take a picture of him playing (see Figure 47) and explained the relationship between football and studying.

Figure 47 - Emmanuel's photograph of playing football to illustrate something that hinders his learning.

> He took this photo to show one thing at home that hinders studying - that thing is playing football. This distracts him from studying! … Because he loves so much to play football so when he starts playing, he forgets also even studying! (RA[17]).

His father used to teach him when he came home from work: "he came with the ball and then they started to kick and return to him and show him how to play" (RA). Now he plays and practises with his friends. He mainly plays at home at the weekends and at school at breaktimes.

Emmanuel likes his home and also really likes the immediate neighbourhood.

> First, there are many children living here to share time with. They all go to different schools. We learn together, play together. Some go to [school in] Hamugembe, some go to Kashabo.

As well as having other children to play with he feels lucky because they have good neighbours who help each other.

> It's important to have good relationships with neighbours, trusting and helping each other with small problems. If you don't have food, you

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[17] Throughout chapters 8,9, and 10, RA is used to show instances of on-the-spot interpretation by Hereneus or Jasson.

> can go and ask your neighbour and your neighbour can either help you with money for food or can give you food.

When asked to list important Kiswahili words to teach me to help me understand about his neighbourhood, he included *kusaidiana* (to help each other), *kuwa jirani mwema* (to be a good neighbour), and *kujitegemea* (to be self-reliant). In justifying the importance of teaching me *kusaidiana,* he reinforced the earlier point about the importance of good neighbours, saying:

> It's important because you can't live on your own because if you don't have someone to help you, you will fail.

Just over halfway between Zamani and Emmanuel's home, there is a small brick building where he goes to private tuition classes after school every day. Their lessons focus on maths, science and English. There are 34 pupils in Emmanuel's tuition class. Emmanuel chose that centre because of the teacher.

> He is not like other teachers. Other teachers, if you make a mistake or answer a question wrong, they don't explain, they just hit you (RA).

He explains that it is different from learning at school because:

> In tuition you don't have to be shy to ask questions ... Also if you fail to answer the question, none can laugh at you ... but this happens in the class (RA).

As well as going to tuition, Emmanuel also does self-study at home in the evenings although he does not have access to the books he needs.

Emmanuel also has several responsibilities at home, including helping with cleaning, cooking, shopping and farming. Water is available at home but if there is a problem, he goes to fetch it from the river.

About a year ago, Emmanuel's mum taught him how to wash clothes: "other activities are difficult for me, I cannot manage it well, but with washing, I can do it well" (see Figure 48).

Figure 48 - Emmanuel's photograph of washing clothes to illustrate something he can do well

> When his mother wanted to wash, she called to him and told him how to do it … so when his mother did it, he tried to do it too … At first, he didn't do it well, but now he is able … It's normal work so he doesn't mind (RA).

Emmanuel's mother also taught him to cook recently (see Figure 49).

Figure 49 - Emmanuel's photograph of cooking to illustrate something he recently learned

> His mother … told him you need to learn because one day I may be absent and you will be the one who has to cook so sit down and see how I cook the food (RA).

They cook on a charcoal stove and he can now cook things like rice and bananas. In the PE interview he talked through all the steps of cooking rice. Although he has burned himself a few times when he first started, now he can do it on his own if he needs to.

Emmanuel started helping and working on the family *shamba* when he was about 10 years old, digging weeds and planting different kinds of crops (see Figure 50). He likes it and thinks it is important in terms of the *kujitegemea* (self-reliance) he mentioned earlier: "sometimes you can't manage to get money to buy food

but if you have a *shamba* you can supply food on the farm". He describes his role:

> We grow bananas and beans mainly … and if I'm not at school I help. I like helping because it's good to cooperate at home. If I don't participate, and all the seed is sown then on the harvest day, they'll say but you just sat … you didn't help! You can't sit and watch, you have to work from the beginning.

Figure 50 - Emmanuel's photograph of farming to illustrate something that is hard work.

His grandmother lives in the village and she taught Emmanuel how to farm when he was visiting during the holidays: "she demonstrated how you can dig, maybe to plant maize, how to dig the hole, put seeds in" *(*RA). He has also learned a bit about farming at school and I asked him to compare learning from his grandmother to learning at school.

> **Emmanuel:** …
> **Hereneus:** His grandmother tries to demonstrate everything at the farm but at school, they are picking what is relevant to them according to the lesson concerned.
> **Rhona:** For example? Tell me something you learned at school about this subject
> **Emmanuel:** (pauses to think) …
> **Hereneus:** For example, on how to plant coffee trees, so at school they are explaining … but it is not in deep so when you compare with the grandmother I think she explains a little bit more about the harvest.
> **Rhona:** Can you think of something that you learned about farming in the classroom that you were able to use in the *shamba*? Or is it not practical?
> **Emmanuel:** I can use it
> **Rhona:** For example?
> **Emmanuel:** …
> **Hereneus:** He is able to determine good soil and how to irrigate the farm.

Emmanuel at school

Zamani is not the nearest to Emmanuel's home and we pass several other government primary schools on our school-home go-along. He explains, "I study at Zamani because there are not enough learning materials at these schools … they are not stable." He likes his school and would not want to move:

> When I arrive at school in the morning, I feel good. When I come early, I sit here and wait for attendance to be taken and then start *usafi* (cleanliness).

He is responsible for picking up litter and sweeping a section of the school drive-way and also sweeping and cleaning the desks in the classroom. After attendance and doing his cleaning duties, Emmanuel joins his classmates and they line up in neat rows for morning parade. Boys from the upper classes play drums and the Teacher on Duty leads drills. There are also prayers and Emmanuel joins in the whole-school singing of the national anthem, national song, school song and finally a song about fighting discrimination and stopping the killing of children with albinism.

In Emmanuel's picture of his 'ideal school' (see Figure 51) most of the main features are also found in Zamani. He sees the priorities as a playing field to play games "so that you keep healthy and fit", trees that provide fruit and shade, toilets so that pupils have somewhere private to relieve themselves, and a teachers' office so, "you can follow teachers in their office so they can make us understand more".

Figure 51 - Emmanuel and Reuben's drawing of their ideal school.

He concedes however, that although Zamani has most of these things, it could be even further improved. For example, for the playing field it would be better to "remove stones, flatten and add goal posts", and although the school does have a library, "it's not easy to take books home". He adds that it would be better if there were "more and enough books for private study" (RA).

There are 138 pupils in Emmanuel's Standard 5 class. They have all their lessons in the same classroom upstairs on the first floor. They sit three to a desk in four rows of ten desks pushed close together.

When talking about what helps him learn in the classroom, Emmanuel values a good relationship with his teachers.

> I like it when the teacher collaborates with me and my fellow pupils about the lessons ... participates with me in games [and]... trusts me and sends me to do something without doubting me.

He sees some teacher behaviour as damaging to this relationship and so does not like unfair treatment such as when:

> [The teacher] beats me with a stick for no reason ... without making a mistake [or] instructs us to sing the times tables and some know it and others don't but the teacher punishes the whole class for not knowing.

Emmanuel also wants the teacher to be consistent and serious in his/her work:

> I like it when the teacher teaches in the classroom by following me to my desk and checking my work … [and] when he/she is serious in teaching lessons about exams … to prepare us well.

Since he takes his studies very seriously, he does not like it when the teacher makes mistakes in his/her marking and, "gives me a *tiki ya bure* (free tick) for the wrong answer".

Table 26 below shows his timetable for a Wednesday at Zamani. The T# after each subject indicates the number of different teachers he sees on a Wednesday, so in this case, he has six different subjects, taught by five different teachers.

Table 26 - Example Zamani timetable for Standard 5, Wednesdays. The highlighted lesson is described in detail below

	7.00 - 8.00	8.00 - 8.40	8.40 - 9.20	9.20 - 10.00	break	10.20 - 11.00	11.00 - 11.40	11.40 - 12.20	break	12.30 - 1.10	1.10 - 1.50	1. 50 - 2.30
Wednesday	Cleanliness & parade	English (T1)	Mathematics (T2)	Kiswahili (T3)		Civic and moral education (T3)	Science and technology (T4)	Civic and moral education (T3)		Vocational studies (T5)		Cleanliness

In this next section, we follow Emmanuel to his Period 3 Kiswahili lesson with *Mwalimu* Alice[18]. Emmanuel sits near the front and I, as the observer, sit at the back with Jasson. From where I sit, Emmanuel is hard to see in the sea of blue school jumpers.

Period 3: Mwalimu Alice's Kiswahili lesson

A brief introduction to Mwalimu Alice

Alice has been a primary teacher for 17 years. She was 17 years old when she did her one year of initial training. Since then, she has taken several study breaks to

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[18] *Mwalimu* means teacher and is the title used to address teachers in the classroom.

get her Form 4, A level, Diploma and most recently BA qualifications and sees a big difference in her teaching now as a result of these qualifications and her experience. She has been in Bukoba and working at Zamani since 2012.

Mwalimu Alice's Kiswahili lesson
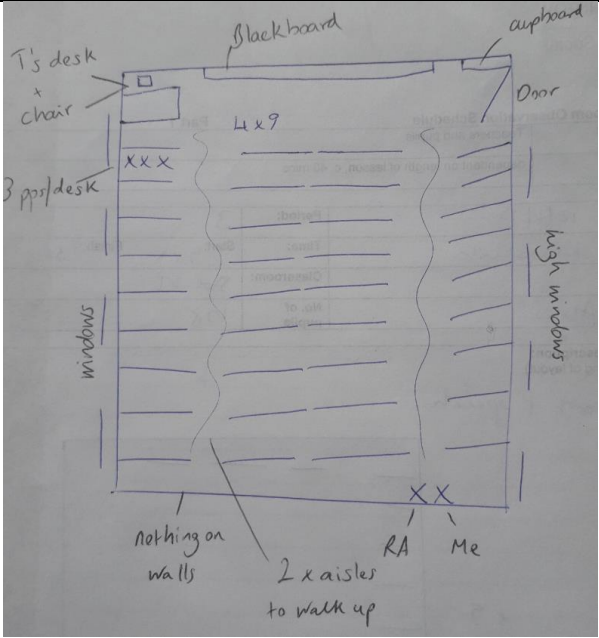
Kiswahili lesson

Standard 5

Single period

108 / 138 pupils

Topic: To communicate in different contexts

Specific Skill: Use vocabulary in speaking by presenting arguments according to different contexts

Today's focus: Identify parts of speech in a sentence: nouns and verbs

Figure 52 - Annotated sketch of Zamani Standard 5 classroom

The pupils stand up and greet Alice when she enters the classroom, "*Shikamoo Mwalimu*[19]". She tells them to close their maths books and writes the date and lesson topic at the top of the blackboard, PARTS OF SPEECH. She divides the board into three sections and introduces the new topic. She checks, "Today we're going to learn what?", "Parts of speech" the pupils reply.

"Who can tell me what the parts of speech are?" About five hands go up and Alice calls on pupils by name to give their answers. She writes the correct answers on the board as she elicits them from the pupils, e.g. noun, verb, adjective, adverb, pronoun. One or two pupils answer incorrectly and Alice reminds them, "no, parts of speech". Once the list is on the board, Alice drills

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[19] *Shikamoo* is a Kiswahili greeting which shows respect to elders

each of the words in singular and plural form. She confirms that there are seven parts of speech and explains that they will analyse them one by one.

Alice writes NOUN on the board and asks, "Who can tell me the meaning of 'noun'?" Three pupils raise their hands and try and she praises and redirects where necessary before reading out her definition from her lesson notes and then writing it on the board: "Nouns are words that refer to names, things, towns and places". She asks, "Are we together?" and the pupils chant, "Yes". Alice asks for examples of nouns for each category. She walks up and down the rows selecting pupils who volunteer, then stand and give their example: "father", "cup", "Mwanza". She repeats each correct answer. As more examples are shared, pupils gain confidence and more and more hands are raised. Most of the pupils seem engaged though a boy near me is working on an English exercise.

After hearing many examples, Alice returns to the board and writes five words on the board. She has noticed a potential problem in the pupils' examples and uses it to draw attention to the difference between towns and places in Kiswahili word classes. She asks pupils to see the distinction and then offers a brief explanation. "Are we together?", "Yes", the pupils reply. "So you've understood the meaning of noun?", "Yes", they shout.

Alice moves on to verbs, and elicits the meaning. After four pupils have tried, she stops, saying "OK, look" and writes four simple sentences on the board, for example, "Juma plays football". She reads out the sentences and asks, "How many sentences?" "Four", they chorus. "And where are the verbs?" So many hands go up that she prompts, "everyone" and the whole class call out the four verbs. She asks again for the meaning and she praises the answers of two pupils before giving her definition, "Verbs are used to describe actions". Alice then asks the class to suggest some more verbs, and many hands go up with suggestions.

Alice refers back to the board and says, "Today we've looked at…?" and the class finish her sentence, chanting "parts of speech". "How many?", "seven", they answer, and read the list from the board when prompted. Alice sends three pupils out to collect the exercise books from the teachers' office and asks, "Any questions?" There is no response from pupils. The pupils hand out the exercise

books while Alice cleans the board and writes EXERCISES. A few pupils I can see are working on a maths exercise but most begin to write the date and topic in their Kiswahili exercise books and start to copy down the exercise instructions, e.g. *explain the meaning of noun and write three examples of words which are nouns*. Alice walks up and down the rows, monitoring the pupils' work and then, referring to the textbook, adds another exercise about verbs to the board which involves pupils underlining verbs in the example sentences. Most pupils seem to copy all questions from the board before starting on their answers. A few pupils glance at others' books. Otherwise, they work quietly and individually. The bell rings and Alice leaves the room while the pupils continue copying and answering questions.

Emmanuel's school-home journey

Emmanuel is an excellent guide on our journey from school to his home. He explains that it usually takes him 21 minutes when he walks with his little brother who is in Standard 1. We slow him down and the whole walk takes 45 minutes. He has a few different routes that he can choose from but he tries to avoid going on the main roads as much as possible. As well as safety considerations, he also prefers more interesting routes:

> I don't feel good when I walk in a straight way. If I do that, I feel tired so that's why I go turning, turning, on these small roads.

As a result, our route takes us across several different types of area and terrain, as the extracts from the go-along field notes show:

> We start walking up the main road towards town, keeping to the dusty section on the right as *bodabodas* (motorbike taxis) and cars fly by…

> We wind our way between buildings and across 2 small streams, crossing on planks, then balancing along a narrow wall with thick mud on one side and the stream on the other.

As we go along, Emmanuel points out key landmarks and demonstrates his local knowledge of the town, including social and economic issues. He comments on the benefits of living in Bukoba and gives details about the cost of living compared to other urban centres:

> There is plenty of food. There are no big problems with electricity. The goods are not a high price, like 2000 TZS for rice here but it's much more than that in Mwanza.

We also discussed the changes he has seen in Bukoba while growing up here:

Rhona:	And have you noticed many changes since you've lived in this house?
Emmanuel:	Yes, there are more buildings, like buildings for people to live. And the environment is cleaner, due to the regional planning issues.
Rhona:	You say many people are building, but why is the number increasing?
Emmanuel:	They want to live near town. Around this place there are plots of land available, but you can't find those plots in the centre of town.

During the walk, he also comments on issues related to flooding, safety, and purchase and consumption of alcohol, showing a very strong engagement with his surroundings and a curiosity about the society he lives in.

Emmanuel is a confident and protective guide, checking that Hereneus and I are keeping up and safely crossing the various obstacles. And when we finally arrive at his home, he does not complain that we have doubled his journey time and tries to make me feel better about my puffing and panting:

Emmanuel:	We have arrived.
Rhona:	(out of breath) I have got old!
Emmanuel:	It is a big hill!

The great maps that Emmanuel drew at home, on his own initiative, (see Figure 53) and in activity club do not do justice to the changing terrains and trajectories of the school-home journey he guided us along.
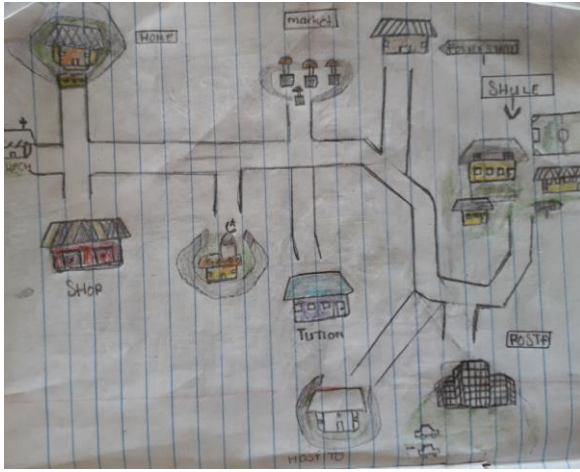
Figure 53 - Emmanuel's map of his home-school journey (drawn at home)

Emmanuel's mother was there to greet us when we arrived and invited us in for a drink of water and a rest. We sat in the living room while Emmanuel was sent to bring water for us to wash our hands and a tray with glasses for us to drink from.

Emmanuel as a research participant

As seen above, Emmanuel was a sympathetic, respectful and protective guide in the go-along and took his role very seriously. This was also true in the other research activities. In activity club, when listening to other participants' presentations, he took neat, detailed notes. In club data analysis tasks, he and his partner diligently worked together, grouping and ranking data in themes. In the orientation for photo-elicitation, he and Benson thought carefully about the rules and responsibilities for using the camera and were actively engaged throughout the session. I asked him about the experience of doing the photo-elicitation tasks and he reported that he had succeeded and had enjoyed the whole process. As well as being a committed and serious participant, Emmanuel also had a great sense of fun, for example, giggling while taking part in the 'speed descriptions' of his journey to school with his peers, and laughing with the other participants while they experimented with the voice recorder in the playground, working out how to use it and how best to complete the task.

Happy's story-so-far

Introducing Happy

Happy is 11 years old and is in Standard 6 at Zamani. She was born in Kashai but now she lives in Bakoba ward. She lives with her aunt, older sister and younger male cousin. Her mother and father moved away for work and her other older sister is at college. Her aunt has a small business. Like Emmanuel, Happy goes to private tuition 5 days a week. She goes to the mosque to pray with her family every Friday. She has wanted to be a doctor ever since Standard 1 when she was sick and had to get a tetanus injection.

Happy at home and in her neighbourhood

Happy likes her home and neighbourhood and appreciates the importance of helping each other: "If there is a hard school task which you cannot do, you will get help or you can get help with domestic jobs like mopping and cooking". However, she concedes that there can occasionally be a downside: "when you are being blamed for the mistake you didn't make or when they give you many tasks without any help".

Happy was keen to talk about how she spends her time at home and was an active part of activity club discussion about children's responsibilities at home. She helps at home by sweeping, mopping, washing her uniform and cleaning her school shoes, washing the dishes and cutting the grass, as well as keeping herself clean and smart. However, Happy made a point of emphasising that her behaviour is not necessarily typical of all Tanzanian children. She explained, at some length:

> Rhona needs to visit various different schools if she wants to understand the habits of Tanzanian children. Some children they like to wash, others they don't like to wash. Some, they brush their teeth and they know the importance of doing it; others they have their own habits, so you have to … talk to different children if you want to understand the habits of Tanzanians.

As well as her domestic chores, Happy also enjoys working in the *shamba*, and in particular, looking after the fruit trees that she planted with her father (see Figure 54). Hereneus interprets:

> This is one of the trees that she grew together with her father and from there she got interested in trees … now she is cultivating fruits from this tree.

Figure 54 - Happy's photograph of a lemon tree to illustrate something she is able to do well

Now that Happy has learnt how to plant and cultivate fruit trees, she will be able to do it herself when she has her own home in the future. I admit that I do not know anything about these things and Happy responds, "If I had not been going to tuition later, I could take you home and show you how to do it".

As well as learning about cultivation, she was also recently taught how to cook rice by her mother. She explains, "It's easy once you know how and if you repeat it many times it becomes easier" and also admits that she likes the praise her mother gives her when she does it.

Happy also spends some time at home with a woman who rents a room there. She is a pharmacist and Happy frequently goes to her with questions about health, medicine and biology, all related to her ambition to be a doctor one day. Four of the nine photographs Happy took for the photo-elicitation task, were related to this ambition (see Figure 55).
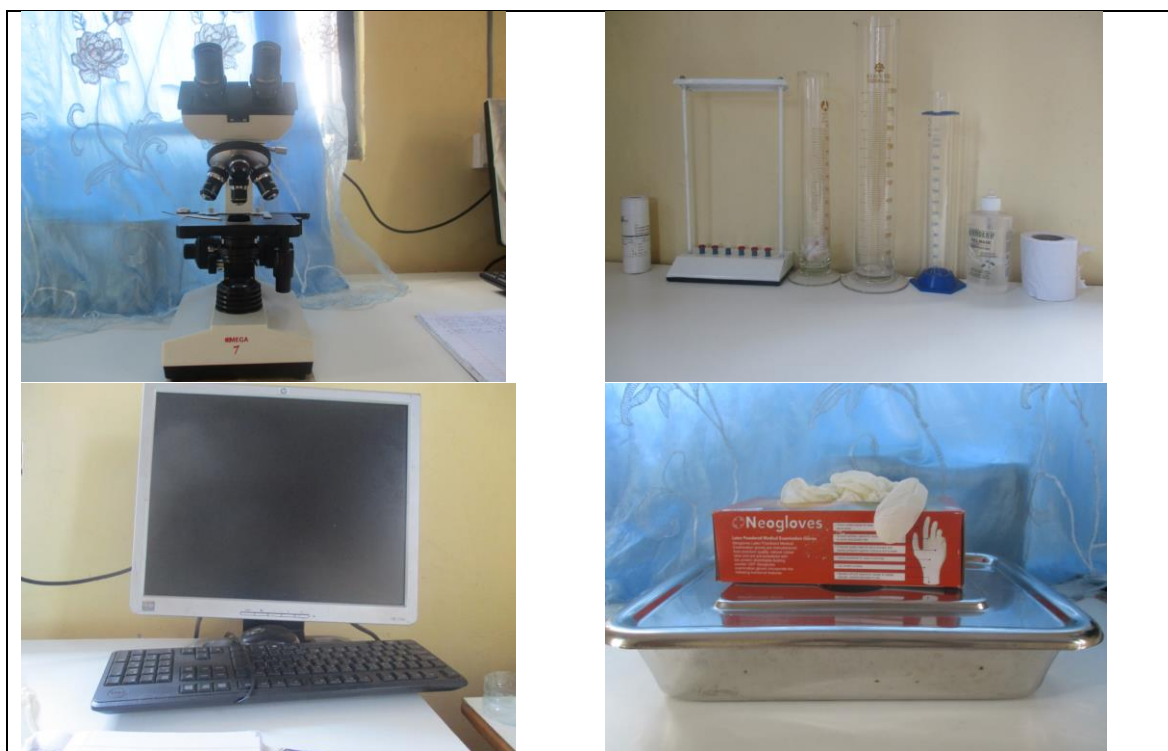
Figure 55 - Happy's photographs of future learning.

Happy likes talking to this woman because she can ask her any questions about a wide range of interests. Recently they have talked about the importance of fruit in the body and the different parts of the body involved in the respiratory system. Happy feels that the pharmacist gives good, useful explanations that she can understand: "She uses simple language at my level rather than the language that is used by the doctor which is not easy to understand". Happy's plan is to study maths, science and English at secondary school so she can get the knowledge she needs to be a doctor.

In addition to discussion and learning with the pharmacist, as we saw in Happy's story in the introduction to this thesis, her older sister also helps her to study at home. Her sister takes on a teacher role, setting and correcting tests. In addition, Happy goes to private tuition five days a week after school. I ask her about the amount of time she spends studying and where this "love of studying" comes from. She reveals that she is driven by competitiveness, to perform well in her class and that, "she's the one who likes to study because the benefits for studying are for herself".

Happy at school

Happy feels good when she arrives at school in the morning as she meets her friends and "she knows that when she comes to school, she will get new things, new knowledge" (RA).

Like Emmanuel, Happy takes part in parade every morning and also has her own cleaning responsibilities. 'Cleanliness' and 'smartness' are important themes for her and she stressed that, in order for me to understand Zamani, I needed to know about the importance of clean toilets, clean classrooms and a clean environment in general, and that all pupils should be smartly dressed in their "complete school uniform".

Happy's picture (see Figure 56) and description of her ideal school also shared many similar features to Zamani. She and her partner prioritised enough teachers, the Tanzanian flag, and sufficient learning materials as the most important things in a school. The extracts below explain their choices:

> We need [enough teachers] for good education. Every day pupils need to get some new knowledge. If the teacher is not at school, the pupils cannot learn as the teacher teaches about things we don't know or understand, and so the school won't have good values.

> If guests come, they can see that this is a Tanzanian flag. It is good for our national identity - it shows we are representing our country.

> Learning tools such as pens, books and exercise books help pupils to learn well at school. And [without them] you can't study at home so when you arrive home you are just playing.
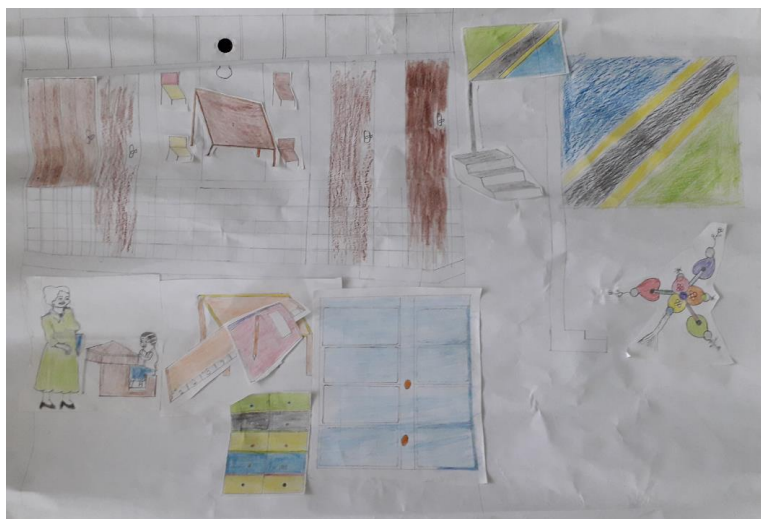
Figure 56 - Happy and Susan's collage of their ideal school.

Happy emphasises that Zamani is already a very good school, and is reluctant to find fault. She later adds that a good school is also one where pupils pass the examination and where the overall school performance surpasses others.

Happy has a clear idea of the things that she wants her teachers to do to help her learn. Several are about supporting her academic achievements:

> I like it when the teacher teaches me so I understand, gives me exercises and examples on new topics so I can pass ... and supervises our work well.

However, she also likes the teacher to be a good role model and teach, "good behaviour, personality and values".

Like Emmanuel, Happy does not like it when the teacher beats her, partly because it hurts, but also because it disrupts teaching time: "I don't like to be punished while the teacher is teaching".

There are 109 pupils in Happy's Standard 6 class. Like Emmanuel, they use and are responsible for the same classroom for all of their lessons. Table 27 below shows a typical day, a Thursday, for Happy. She would have six different subjects, with five different teachers. At Zamani, English, mathematics and Kiswahili are generally taught in the early morning sessions for Standards 3 – 7, when timetable interruptions are less likely and teachers and pupils are more alert.

Table 27 - Example Zamani timetable for Standard 6, Thursdays. The highlighted lesson is described in detail below.

		8.00 - 8.40	8.40 - 9.20	9.20 - 10.00	break	10.30 - 11.10	11.10 - 11.50	11.50 - 12.30	break	12.40 - 1.20	1.20 - 8.00	2.00 - 2.30
Thursday	Cleanliness & parade	Kiswahili (T1)	Mathematics (T2)	English (T3 - Neema)		Science and technology (T4)	Civic and moral education (T5)			sport, games and art (T4)	Religion	Cleanliness

Happy has English just before morning break. She has recently started carrying a small Kiswahili-English dictionary with her every day (see Figure 57). All the pupil participants were given one, and shown how to use it, as part of a thank you gift for taking part in the study. I ask her how she uses it:

Hereneus:	She always uses the dictionary, even now it is in her bag and she can use it during the short break or if the teacher is not yet in the classroom, she can use it to check words.
Rhona:	Great! It's not got every word – sorry! And when you go to secondary you will need to get another.
Happy:	Yes, but now, for my level this is enough for me.

Figure 57 - Happy's photograph of an English-Kiswahili dictionary to show something she recently learned.

In this next section, we follow Happy to her Period 3 English lesson with Mwalimu Neema. Happy sits near the door at the front and shares a desk with two other girls.

Period 3: Mwalimu Neema's English lesson

A brief introduction to Mwalimu Neema

Neema completed her teacher training diploma in 2005 and has taught in five different urban primary schools in three different regions of Tanzania. She has worked at Zamani for six years and is the Academic Master there. In the year of this study, Neema was teaching English, science and technology, and civics.

Mwalimu Neema's English lesson

English lesson
Standard 6
Single period
107 pupils
Topic: Read and comprehend written information
Specific skills: read and comprehend a personal letter
Today's focus: Components of a friendly letter.

Figure 58 - Annotated sketch of Zamani Standard 6 classroom
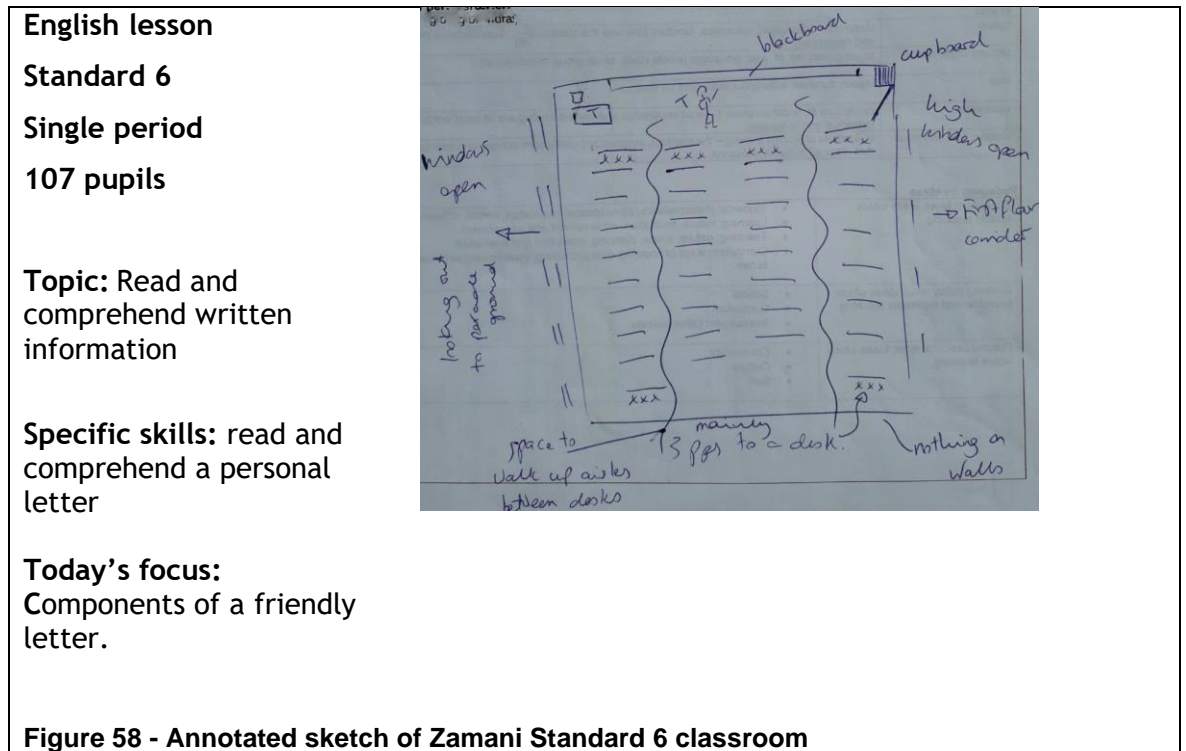
The pupils stand as Neema enters the class and greet her in English, "Good morning, Madam". Neema asks, "What is the date of today?" 107 pupils slowly chant in English, "the date of today is 29th January 2020" and Neema writes it on the board. "Who can remind us what we were studying?" she asks and then calls on one pupil with a raised hand. "We learnt about personal letters." "Yes, and who can tell us what is a personal letter or a friendly letter?" One boy stands and says, "a personal letter is a kind of letter one writes to a mother, brother, sister or niece." "Good" Neema responds. "Now, who can tell us, how many components of a friendly letter?" She selects one pupil who answers, "six". Neema says, "There are …?" and raises her intonation to prompt the class to complete her sentence - "six components of a friendly letter" the class chants. "OK good. One is…?" "Salution", offers one pupil. "Not salution. Salu**ta**tion" and she signals to the class to repeat and they call out "salutation". Pupils start raising their hands and giving their other suggestions, listing "Address", "Date". Neema writes them all on the right-hand side of the board as they say them.

Neema starts writing examples, giving oral examples and explanations in Kiswahili for each of the components. Some pupils call out suggestions as she

writes. When she reaches the main body, she says, switching back and forth between languages:

> Then we have the main body here, after main body here so I'm going to conclude my letter, so what should I do? Maybe *ninaandika* (I write) 'Pass my lovely greetings on…', *na halafu ninaandika* (and then I write) *Fatma Ahmed*.

Neema switches fully into Kiswahili and recaps the components and links between them. The pupils sit quietly and appear to be listening. Neema regularly checks, "*sindio*?" (Isn't it?) and the class responds "*Ndio*" (yes). At the end of this section she asks, "*Tumeelewiana*? Have we understood each other? Yes or no?" There is a chorus of "Yes" in response. "Do you have any questions?" The class sits quietly.

Neema writes the topic and activity on the board (see below). One pupil knocks on the desk to get Neema's attention. "What's the problem?" she asks. Neema later tells me that the boy was complaining that his neighbour was making noise and distracting him. Neema speaks sternly to the boys and returns to the board.

ENGLISH

COMPREHEND ORAL AND WRITTEN INFORMATION

Personal / friendly letter

Activity 3

Use the following words to complete the following letter.

The pupils start copying from the board into their exercise books. The board is divided into three. On the left is the gapped letter, the missing words are in the middle section and the components and example structure remain on the right of the board (see below).

29th January 2020
ENGLISH
COMPREHEND ORAL AND WRITTEN INFORMATION
Personal / friendly letter
Activity 3
Use the following words to complete the following letter.

Zamani Primary School			
(1) _____			Writer's address
(2) _____			Date

letter	my parents
news	wishes
visit	P.O. Box 362, Bukoba
train	29th January 2020
bus	Dear Doreen
expensive	days
meet	question

Salutation
Main body

Conclusion
Name of writer

(3) _____,

Thank you for your last (4) _____. It was good to hear all your
(5) _____. I have a (6) _____ to ask you. Would you like to
(7) _____? (8) _____ would like to (9) _____ you. Can you
come in March? Can you stay for 12 (10) _____? You can come here by
(11) _____ or by (12) _____. I think the bus is best. The trains and
buses leave early in the morning. They are not very (13) _____.
I hope you can come. Please let me know.

Best (14) _____
Irene Ivan.

Neema reads out the gapped letter and the words and explains in Kiswahili the gap-fill task. Neema then does a quick meaning check of some of the vocabulary, asking in Kiswahili, "Who can tell me the meaning of 'expensive' in Kiswahili?" Happy puts her hand up and quietly answers *"bei"* (price). "Happy has answered *'bei'*. Who else can help? For example, (holding up her pen) this pen is very *expensive*". The class is sitting very quietly, waiting and listening. Another pupil raises his hand and suggests, *"bei kubwa"* (high price or expensive). "That's right," Neema says and gives another example to clarify, then, "Are we together?" "Yes," the class responds. Neema continues asking the meaning of other words, then asks, "Are there more difficult ones? Do you understand?" giving the class a chance to check. No hands go up and the pupils continue copying down the text.

Then Neema tells the class in Kiswahili, "I'm going to give you homework, but you need to write it on a piece of paper, OK? Don't write it in your exercise books." She writes:

> **Home activity**
>
> Write a letter to a friend and tell him or her during Easter holiday you will visit.

Neema reads out the activity in English and then translates and expands in Kiswahili.

The pupils at the back bob up and down at their desks, trying to see the words which are written at the bottom of the board. Some are starting to fill in the

blanks. The structural answers for address, date, salutation seem to be easier but the ones in the main body, which require understanding of the gist of the message, appear harder and some pupils are glancing left and right to see how their neighbours have done it.

The bell rings. Neema looks at the class register and asks, "Who's not in school?" A few pupils call out the names of their absent classmates. Neema marks it in the register and then leaves the classroom while the pupils continue the gap-filling activity.

A few days later, Neema is marking the class's exercises books. I ask Neema how the pupils have done. "Ai!" she exclaims, "They couldn't do it! Maybe only 4 or 5 out of 14 marks". I ask if she thinks all the pupils will write the freer homework task and she replies, "Yes, because I told them that it is part of the end of month test", so on Friday, Neema will receive 107 friendly letters to assess.

Happy's school-tuition journey

Happy asked if we could walk together to the tuition centre rather than to her home. She claims that her walk to school in the morning usually takes her 12 minutes. We set off from Zamani and immediately find ourselves in a cloud of lake flies. The whole go-along is peppered with coughs and splutters as they swarm around our heads, going up our noses and in our ears and mouths. I have never seen them like this before. Happy explains: "The insects came in the morning at 10 o'clock when we were playing … They like this weather".

We use the common narrow path that cuts off a corner and avoids the main road for a bit longer. Happy does not like the traffic on the main roads in Bukoba but also does not like cutting through the long grass to avoid it: "I'm scared if I pass here by myself, and if a see a snake. I'm really scared because there's lots of long grass". She has seen a small snake there before and thinks that it was dangerous. She warns me, "Remember that snakes have poison and if you don't get first aid, it can make you injured". I ask what I should do if bitten and Hereneus interprets her response:

> She has 2 alternatives. The first is to use part of clothes to tie and to avoid the expansion of poison in the body. The second one is to use the coin … put the coin where you have been bitten by the snake, so as to avoid the poison to expand.

We re-join the main road and Happy keeps up a good commentary of the places we pass. She likes the area around the regional offices because it is "secure and peaceful". She shows us a useful shortcut through the area where the prison guards and their families live next to the prison, but she does not like passing that way. "She's afraid because a large number of prisoners are living here and when she sees the police with guns, she feels scared" (RA).

Soon we re-join the main road, this time at a busy round-about. Happy shows us where to cross safely and explains, "This is a place I'm scared because there are cars and motorbikes passing and I'm really really scared". Shortly after we cross, we come to a place Happy likes much more. We stand on the bridge over the lush marshy area looking at the storks, kingfishers and goats. She tells us, "When you stand here you can see the good environment". She points out her tuition centre in the distance and points towards the busy area of Buyukera, with houses built close together and climbing the hillside, to show where her house is.

A few minutes later we reach a zebra crossing and Happy tells us about an accident she had there a few years earlier. Hereneus interprets:

> She's scared in this place because she got an accident. At that time there was no zebra crossing there … She had an accident with a motorcycle that caused her arm to be broken.

Hereneus and I sympathise, and then we go to the *genge* (small kiosk) to buy some juice and biscuits before tuition.

We arrive outside the tuition centre which is a modern-looking house on a residential side street.

Rhona:	Thank you so much. You have been a very good guide. How was it for her?
Happy:	…
Hereneus:	It was good because you have told her many things.
Rhona:	And you have helped me very much.

Happy: And you, you've helped *me* very much.
Rhona: No, you've helped me!
Happy: (gesturing to Hereneus) And he's helped me.
Hereneus: (to Happy) And you've helped all of us.
Rhona: We've all helped each other.

Happy as a research participant

This last exchange above is a good reflection of Happy as a research participant. She was consistently enthusiastic, chatty and quite assertive throughout the research activities. Of all the girls, she gave the longest answers, often pausing to think before responding and also volunteering her own comments and questions. In the first activity club it was her idea to give the club a name and the participants voted and settled on 'Education Club', and at the end of the ethics session, when asked if anyone had questions, she wanted to know why I had chosen Bukoba and why the primary level of schooling for my study.

Happy was keen to share her ideas about the research process, as we saw in her warning earlier about club participants not representing all Tanzanian children. After the photo-elicitation interview she explained that it had been "a simple task" since we had given clear directions. The pictures she selected to talk about were the ones she, "likes from her heart" (RA). In the closing activity club session, when we were asking for feedback, she offered her final thoughts:

> First of all, we congratulate her (Rhona) for the big job she
> did. Second, thanks - there were some English words that weren't
> easy to understand but madam helped us. And there were things we
> thought would be hard but now we see they are easy (RA).

As we were saying our farewells, Happy suggested that she might see me again in Scotland as she might be able to study to be a doctor there.

Julius's story-so-far

Introducing Julius

Julius is 11 years old and is in Standard 6 at Mpya. He has studied at this school since Standard 1 and so moved location with the school when it opened on the new Kashai site in 2017. He lives with his "little brother, sister, mother, father and neighbours". They used to live in a rented house nearer the old Mpya site, but his father recently bought a portion of land up on top of the hill in Kisindi *mtaa* and they are living in the two completed rooms of their new home while building continues. His father works as a driver and handyman and his mother has her own small business. If Julius could choose to spend more time doing one thing, it would be playing football.

Julius at home and in his neighbourhood

Julius is proud to show us around his new home, pointing out where the different rooms will be. Several of his neighbours' houses are in a similar condition: some look newly finished and others still being built. At Julius's house, they do not have water yet and so fetch it from the river and use rain water too. In many ways he really likes the location of his house up high on the hill. He likes the views over Bukoba and Lake Victoria and the nearby forest "with good conditions and a breeze". However, he does not like 'the mountain' he has to climb up and down to go to school as it, "makes him tired when he has to go on foot", although he concedes that, "he can learn from that challenge of being tired. He means that it refreshes his mind" (RA). He understands too that it was not possible for his father to buy a portion down the hill, nearer town as, "the places near town are expensive".

He associates home with work, play and study. He helps at home by washing and drying his uniform, sweeping and fetching water. He also loves playing football (see Figure 59) and there is a playing field near his home where he can go with his friends. He thinks he is good at it because, "If I like it a lot, I practise it and then I know it."

Figure 59 - Julius's photograph of a football to illustrate something that he is good at

Hereneus interprets as Julius explains how he learned to play:

> He learned how to kick the ball, how to chip the ball and also how to dribble. He learned from his friends who were good at playing football … and now he plays together with them.

He has also recently taught himself to ride a bike (see Figure 60): "[it is] something I really like because it helps me exercise and it's fun".

Figure 60 - Julius's photograph of his bicycle to illustrate something he enjoys

Rhona:	And when did you learn to ride a bike?
Julius:	I learned 3 weeks ago
Rhona:	Ah! Just recently… And how did you learn?
Julius:	I learned by going on the steep area, going up and down and after 3 days I had mastered it.
Rhona:	And who helped you or taught you?
Julius:	It was a gift …
Hereneus:	It was a gift from his father. They left him alone and they thought he couldn't do anything so he decided to do some practice by himself so after doing much practice, he succeeded.
Rhona:	I have 2 questions. The first is, were you scared?
Julius:	No, I had no fear.
Rhona:	The second is, did you fall off?
Julius:	Yes, I fell off (all laugh)

Julius also likes carrying out small home experiments based on what he has been learning at school and has a great curiosity about the world about him. In science class, when they were learning about "interrelations and interdependence of breathing things" (RA) he became interested and decided to investigate further:

> He decided, himself, to do this kind of experiment because he saw in a book it said why the hen likes to brood after laying eggs (RA).

After a long explanation of his experiment, Hereneus summarises it as:

> He put the chicken eggs to the duck and the duck eggs to the chicken … and after the chicks were born the hen chicks followed the duck and the duck chicks followed the hen.

Julius is animated throughout the description and at times Hereneus struggles to keep up.

Rhona:	I think you like to learn like this, to see and to do investigations?
Julius:	Yes. It's good.
Rhona:	And is this the same way as you learn in the classroom? Does your teacher use methods like this to teach you too?
Julius:	Not always but sometimes they use it.

Julius does not specifically mention tuition or self-study but the examples he gives show that he is motivated to learn more about his world both in and out of school in a number of different ways. Several of the pictures he took for the photo-elicitation task were taken near his home but were related to wider topics, for example, Figure 61.

Figure 61 - Julius's photograph of Lake Victoria to illustrate something that he recently learned / something he likes

Rhona:	Why did you take this picture?
Julius:	I took it because there is the lake. This lake is the biggest lake in Africa because it occupies 3 countries: Tanzania, Uganda and Kenya. I took it because it's something I learned, last year … I learned it in social studies which is divided into 3 subjects: history, civics and geography.

Julius at school

Julius likes attending Mpya and likes the facilities at his school. In particular, he likes that there are enough good classrooms and toilets. Mpya has enough classrooms to separate the big Standards into two streams, in different classrooms, and it is the only government school with flush toilets in Bukoba. Julius thinks it is important to have somewhere safe and clean to pee and poo so you are less likely to get sick.

Since he has attended Mpya from Standard 1, he remembers when the school moved to the new site:

> He enjoyed [seeing the new school for the first time] but one of the challenges was to shift the components, like the desks. They (the pupils) had to move all the old desks from the old school to the new one … to bring them on foot (RA).

In terms of the good school facilities and infrastructure, he highlighted the use of water tanks when talking about something he had recently learned (see Figure 62):

> We learned a new topic in geography class. We learned about how to keep sources of water. The teacher gave examples about our school, that our school is one of the schools that stores rain water.

When asked why he had chosen to talk about this when he learns so many topics, he replied, "because water is life".

Figure 62 - Julius's photographs of water tanks at school to illustrate something he recently learned and something he likes about his school

Inside the compound, Julius likes the plants and trees that have been planted as, "they help the pupils to have clean air". He sees the importance of having a clean environment: "dirtiness [is] something that makes it hard to learn" (see Figure 63)

Figure 63 - Julius's photograph showing dirtiness - something that makes it hard to learn

Hereneus interprets Julius's reasons for the importance of a clean environment:

> It is important to have a clean environment at school for learning. There are 3 points. The escape from transmission of diseases … Then they need good health so they'll be fit and healthy. Also, they can have good attendance in the classroom when the environment is clean (RA).

Usafi (cleanliness) is the first word that Julius chooses to teach me to help me understand about Tanzanian schools. *Raising the flag* and *singing the school song* come next. His drawing of an 'ideal school' (see Figure 64) reflects many of the features that he has already mentioned or are present at Mpya. The main difference is that his perfect school would have a playing field.

Figure 64 - Julius and Oscar's drawing of their ideal school

There are 49 pupils in Julius's Standard 6 class at Mpya. Julius likes to sit at the front of the class. He explains the picture that he took to show this (see Figure 65):

> He took this picture to show something that helps him learn - sitting at the front he can hear the teacher well. The teacher doesn't bring a high voice then the ones who sit backwards do not get him or her. He can view well the words written on the blackboard rather than the ones sitting at the back (RA).

Figure 65 - Julius's photograph of his desk to illustrate 'sitting at the front' - something that helps him learn.

Julius does not mention a favourite subject but when talking about things he is interested in or enjoys learning, science-related topics often come up. As well as conducting the *brooding experiment* at home, he also talked about another

investigation he would like to carry out involving the school *kengele* (bell) (see Figure 66):

Figure 66 - Julius's photograph of the *kengele* (bell) to illustrate something that he wants to learn in future

Rhona:	Aha! What's this?
Julius:	*Kengele* (bell)
Rhona:	The school bell! And why did you take this picture?
Julius:	The bell is something that really helps the teacher …
Hereneus:	The teacher can call the class. It helps the teacher to communicate easily with the pupils
Rhona:	(confused) but which question is this for?
Julius:	It's about something I want to learn in the future – sound.
Rhona:	You want to learn to hit it?
Julius:	No! Not that! … I want to learn about sound – how it comes out and collides.

Julius then talks enthusiastically about how he could ask his friends to help him investigate how sound travels, though there is confusion around some of his description, for example referring to the 'light' that comes out when the object is struck:

> I will move the pupils away to stay far but when you hit it, the *mwanga* (light) and the sound comes out loud and it goes in the ears and the ears say that they are calling us, and something must be going on!

Again, these are ideas that he has had independently, linked to some topics in the classroom but developed further by himself because of his interests.

Table 28 below shows a typical Monday for Julius at Mpya. He has six different subjects, taught by six different teachers.

Table 28 - Example Mpya timetable for Standard 6, Thursdays. The highlighted lesson is described in detail below.

	7.00 - 8.00	8.00 - 8.40	8.40 - 9.20	9.20 - 10.00	break	10.20 - 11.00	11.00 - 11.40	11.40 - 12.20	break	12.30 - 1.10	1.10 - 1.50	1. 50 - 2.30
Monday	Cleanliness & parade	Mathematics (T1)	Civics (T2)	Kiswahili (T3)		English (T4)	Science and Technology (T5 - Jackline)			Social Studies (T6)		Cleanliness

In this next section, we follow Julius to double science and technology period with Mwalimu Jackline. Julius sits in his preferred seat at the front with one other boy, and the other pupils are spread around the room. There are some empty desks at the back and in the middle and pupils generally sit two to a desk.

Period 5 and 6: Mwalimu Jackline's science lesson

A brief introduction to Mwalimu Jackline

Jackline became a primary teacher in 2013. Originally from a big town in Kilimanjaro Region, her first placement, to a very rural school in Kagera, was quite a shock; pupils often came barefoot and she campaigned hard to try and get parents and teachers on board to improve the situation. She is happier now that she is in Bukoba town. She started at Mpya in 2018.

Mwalimu Jackline's science lesson

Science and technology lesson
Standard 6
Double period
42 pupils

Topic / Specific skills: Identify different types of energy and its use

Today's focus: the difference between series and parallel circuits
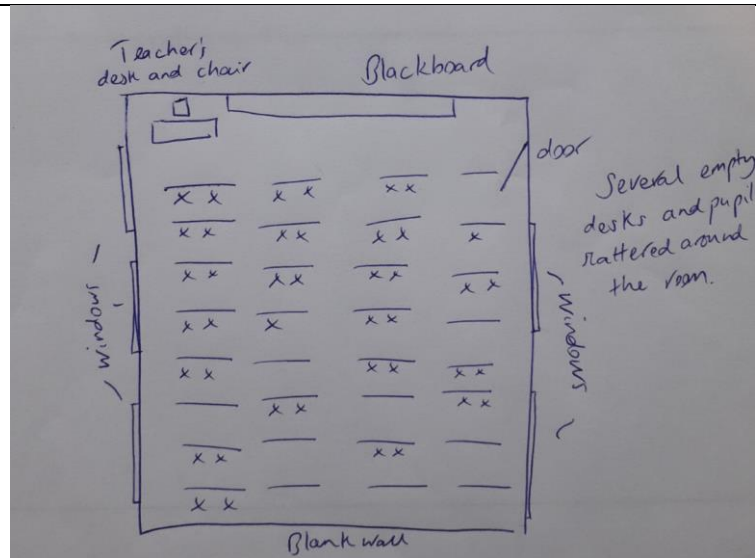
Figure 67 - Annotated sketch of Mpya Standard 6 classroom

Mwalimu Jackline enters the classroom and the pupils stand up and greet her in chorus, "*Shikamoo Mwalimu*." She immediately prompts them to sing 'the science song' and they launch into a song, which starts:

> Aiya aiya science, teacher teach us
> Teacher teach us about soil,
> Teacher teach us about body parts …
> Aiya aiya science, teacher teach us

After a few verses, Jacklines tells them to stop. The pupils are still shuffling, sitting down and murmuring as she asks, "What are we studying?" A few call out, "circuits".

Jackline then says, "What is a circuit?" A few hands are raised and Jackline chooses one boy. "The flow of electricity," he says. "The flow of …?" prompts Jackline, and the class chants, "electricity". Jackline writes CIRCUITS, and THE FLOW OF ELECTRICITY on the board. "What are the things that complete a circuit?" she asks. Several hands go up, and Jackline writes each pupil's answer on the blackboard: "battery", "wire", "switch" and "bulb". When the list is complete, she tells the class to read the components out, one by one. Jackline continues the review of the previous lesson asking, "What does each part do?" This time, there are no hands up. Jackline starts to go through each component,

giving a brief description and writing a few words on the board, but the writing is quite faint and slopy and difficult to read, for example, "the battery gives the charge". She asks some simple eliciting questions and short questions to check attention, like "Are we together?"

Then Jackline turns to the class, looks at them and starts to scold them. "Why is this class so dirty? You are like Standard 3! But you're mature – you're not Standard 3!" The pupils sit quietly. "So, what does a switch do?" she asks, returning to the topic.

Next Jackline writes TYPES OF CIRCUIT on the board and, to finish this review section, she asks, "How many types of circuit are there?" A few pupils call out, "two". Jackline goes on to elicit the types of circuit and two volunteers are able to answer, *"sakiti mfuatano"* and *"sakiti sambamba"* (series and parallel circuits). When she asks the meaning of each, the class is quiet again.

Jackline takes two flipchart pages from her desk and tapes them to the blackboard, one with a hand-drawn diagram of a series circuit with bulbs and the other, a parallel circuit with bulbs. She points to the different components and describes each circuit. "Who can tell me the difference?" she asks. One boy pointing to the series circuit diagram, suggests, "If one bulb isn't working, the others won't work either". Jackline confirms by rephrasing the answer and highlighting that this is different from the parallel circuit. She takes suggested explanations from two more pupils, each time building on or slightly altering their answers to give her explanation.

"Do you have questions?" Jackline asks. One pupil raises his hand: "Why does the light go off when the wire is disconnected?" Jackline turns to the class and asks, "Who has the answer?" Nobody answers but a pupil asks another question. Jackline gives a short response, then adds, "I will explain more in the next lesson." She asks, "What have you understood?" Two volunteers are invited to stand and they say, "I've understood there are different kinds of circuit," and "I've understood that series is different from parallel".

Jackline starts cleaning the previous notes from the board whilst reading from her note book. It is difficult to hear her as her back is to the class. Then she turns and tells the class,

> For homework, each group will make a circuit and on Friday I will inspect them. Use your own money to buy things if you need to, for example a wooden board to mount it on. I need a circuit that looks like what I've drawn here. The winning group will get a gift.

One pupil asks, "Can we use solar instead of battery?" Jackline replies, "You can use any source of energy."

Jackline returns to the board and writes, EXERCISES. She writes six questions, based on the oral explanations and question and answer session that has just been completed, for example:

> 1. Mention the components of a circuit.
> 2. Describe the use of each component in the circuit.

The pupils start copying down the questions into their exercise books and Jackline sits at her desk and writes some notes. She tells the class, "If I didn't mark the previous lesson, bring it to me," and some pupils get up and form a queue at her desk. Jackline marks their exercise books and the pupils return to their desk and continue the new exercise. After a few minutes, pupils start going up to Jackline's desk with their answers to the new exercise. Jackline continues marking them, occasionally calling out comments for the rest of the class to hear. This is generally negative, such as:

> "Why have you written notes in your exercise book? You should have been listening!"
> "Pupils are lazy! They fail to copy notes in the headings but they copy from the board. It's a shame."

Some pupils show others their books as they come back from being marked and the pupils quickly check the marked work against their own. The noise level has gradually increased as the pupils quietly chat to their neighbour and compare books.

After an hour and twenty minutes, Jackline stands up and leaves the room, telling the class monitor to take down the posters and bring them to the staffroom.

The following week, I meet Jackline in the staffroom and ask her if the pupils completed their group homework assignment:

> Rhona: Did they manage to make a circuit?
> Jackline: They have tried.
> Rhona: And succeeded?
> Jackline: Yes, and succeeded.

She explained, giving an example of one group, who took the battery from a phone, the switch and bulb from a torch and wire from another appliance and mounted it on a board. It worked well. Each group presented at the front of the class and Jackline asked questions such as, "What's your source of power?"

Julius's school-home journey

It became clear during the study that Julius had a quick and curious mind and this was demonstrated again at the end of the photo-elicitation interview when we were preparing to walk home from school together. Because of his interest in geography and his photographs of the school and lake, I showed him Bukoba town on Google Earth on my laptop and asked him to identify a few key landmarks, which he did with ease, considering it was his first time. Then I asked him to show us the route we would take home by guiding me on the laptop screen. After finding a few landmarks to get his bearings, he was quickly able to trace the route on the screen, pointing and describing places on the route.

Later, as we wound our way up the narrow rocky path to his home, Julius referred back to the places we had seen on Google Earth regularly, pointing out the same landmarks as we passed them. He knew the way very well and regularly had to wait for us to catch up as we clambered over slippy rocks and up the steep path. He has been walking to school alone or with friends since he was 5 years old.

Julius was the chattiest of the Mpya pupils who agreed to go-alongs and had the most to say about his surroundings; he was also older than the others. During the go-along, Julius described the changes he has seen in Bukoba in the last eight years:

> Before, the roads, they weren't tarmacked … The infrastructure has changed. Some places had no water system before but now there is … Before there was nobody living in these places but now he says these settlements are improving every day. It had trees only but nowadays people are constructing houses and settlements. Some are from outside the region… the others have been employed here and others are here for their businesses. [They come] because Bukoba is growing fast economically (RA).

Julius as a research participant

Julius quietly but enthusiastically threw himself into the research activities. He was serious and careful when learning how to use the camera and laptop, not showing any great excitement, but later said that he had really enjoyed learning to do these things for the first time. He was very quick to learn and pick up new ideas. In activity club, he fully engaged in the range of tasks, including giving confident presentations to his peers and listening carefully to others so he could record clear detailed notes of their ideas. He was protective of me during the go-along and when we arrived at his home, his parents were not present but he brought me a glass of water, looked at my hot red face he said: "You are very tired. Please excuse me for not inviting you inside", showing delightful consideration and maturity.

Discussion and conclusion

This chapter has presented three pupils' 'stories-so-far', which highlight aspects of the participants' lives across school, home and neighbourhood spaces. In all three stories we can identify 'togetherness' as a key trajectory across spaces. Emmanuel, Happy and Julius value their local community and see the importance of cooperation. In Emmanuel and Happy's stories, we saw that working and learning together are often done in one-to-one or small group interactions. Across all three stories there is a strong link between this kind of learning and work, cleanliness and shared responsibility. Their accounts echoed Nyerere's about working together for the common good 55 years earlier (Nyerere, 1967 in Lema et al., 2004). The children are accepting of and take a

disciplined approach to their chores and see their importance and the principles underpinning their work, as has been observed in other 'collective' cultures (Hart, 2008, Katz, 2004, Tudge, 2008). The boys have some separate time for play and hobbies: football, riding bikes and drawing, compared to Happy, reflecting wider "gendered patterns" of work and out-of-school activities (Vavrus, 2021, p. 205).

Whereas learning practical agricultural and domestic skills at home is often done with individual support or interaction, learning in the classroom is more concerned with gaining factual knowledge, often compiling lists and categories with examples, and is a whole class endeavour, assessed largely by individuals' written work; Jackline's practical group homework task stands out in this regard. In all three lessons, the teachers, referring to prepared lesson notes, use individual pupil's short answers, together with her corrections, definitions and examples, to logically build up the lesson content orally and on the board. The pupils cooperate by answering individually when called upon or chorally. In Julius's class we also saw that by not answering the questions, the teacher is then nudged into the information-giving role again, as we saw in Tabulawa's study (2013). When the teacher's work of delivering the curriculum content in the lesson is done, the pupils are set exercises to work on individually. These repeat and consolidate the main oral lesson content, providing the pupils with a written record and allowing the teacher to assess all pupils. The exercises require short right or wrong answers similar to those the pupils will encounter in their future examinations. In Emmanuel and Happy's lessons, completion of the exercises was unobserved, by me and the teacher so we do not know if the exercises were completed individually or collaboratively. In Neema's lesson, even with peer support, it seems the class struggled to understand the meaning of the main body of the letter; the cognitive demands of the exercise exceeded what had been done together in class. In Julius's lesson any peer support was only to copy answers, not to support understanding. For Happy, when school work is taken home, sibling support shifts to reflect the classroom model; her sister is in the role of teacher, testing and marking, distinct from the 'working together' dynamic that usually characterises home learning spaces.

All three children value education and take their learning and studies seriously: Julius ready and keen to listen at the front of the classroom and try to apply his

learning outside, and Emmanuel and Happy disciplined in their self-study and committed to the extra hours of private tuition every day after school. They want and expect discipline from their peers and teachers too – for this to work, everyone needs to be working together towards to same goal. However, for Emmanuel and Happy, corporal punishment, its jarring unfairness, the pain it causes and the disruption of class time, flies in the face of the trust and cooperation they want to have with their teachers. This is perhaps an example of the "struggles and contradictions" (Tabulawa, 2013, p. 74) of co-constructed pedagogy.

As research participants, all three threw themselves into the activities, sharing their ideas and knowledge and showing leadership and care. They quickly learned and applied new skills. Happy, in particular, was quite critically engaged from the start, asking questions and commenting on the research process. Through data generation activities, I saw the agency Emmanuel has in the space between home and school, Happy's inquisitiveness with the pharmacist and Julius's curiosity which makes his local environment his laboratory. These stand in sharp contrast to the interactions in the classroom.

I reiterate here that Emmanuel, Happy and Julius's stories do not seek to be representative. Instead, they provide illustrations of how school and home spaces are negotiated by three individual children. As well as offering a more holistic view of the richness of the pupils' individual stories, with their curiosity, commitment, responsibilities and ambitions, through their perceptions and experiences of negotiating these different spaces, Alexander's assertion that "a culture does not stop at the school gate" (2000, p. 29-30) can also clearly be seen. However, although it does not stop, it also does not enter unchanged. Some of the same social and cultural trajectories that produce home spaces, also produce classroom spaces, though in distinct interactions. In line with Massey, I am not attempting to identify all trajectories but rather am prioritising a selection, which I see as, "reflecting actual practices of relationality" (Massey, 2005, p. 80). The trajectories of 'togetherness', 'shared responsibility', 'discipline and respect' and 'the value of education' emerged as prominent in pupil participants' accounts concerning in and out of school spaces. In the lesson descriptions, we started to see how these social and cultural trajectories interact with classroom or educational trajectories such as curriculum and

assessment. Togetherness, for example, bends and warps as it interacts with these powerful, system-driven trajectories, and it plays out very differently for the children and their learning and interactions in the classroom, compared with at home, or even with the researcher.

However, here I think it would be too easy to simply conclude that collectivist cultures favour or produce the conditions for whole-class, teacher-directed teaching, where all pupils are expected to move together through the lesson, even if these are re-categorised as 'children-centred' (Croft, 2002) or 'learning-centred' (O'Sullivan, 2004). Or, indeed that hierarchical adult-child relations provide the justification for lessons dominated by teacher-led explanation (Tabulawa, 2013). In all three children's stories-so-far, we see that they value peer and family support for different kinds of out-of-school learning. This is *also* part of culture. As we saw in Katz's creation of environmental knowledge, children interact with peers "to acquire, try out, use, master, reimagine, and alter environmental knowledge" (2004, p. 60), i.e. there is a range of effective informal interactive pedagogies in children's communities. However, this aspect of culture does seem to stop at the school gate, or at least it is muted by more dominant trajectories which leave no space for similar peer support in the classroom. In this sense, pupils' stories-so-far can be seen as interrupted in the classroom.

The next chapters will build on these stories-so-far by integrating data and analysis from other participants to further explore the kind of spaces these trajectories and their interactions produce and how these bundles of trajectories are negotiated by the people in those spaces. This will lead to the discussion of the implications and opportunities for learning and pedagogies in the classroom space.

Preface to Chapters 9 and 10

> Life in schools and classrooms is an aspect of our wider society, not separate from it: a culture does not stop at the school gate. The character and dynamics of school life are shaped by the values that shape other aspects of our national life (Alexander, 2000, p. 29-30).

> The singularity of any individual place is formed in part out of the specificity of the interactions which occur at that location (nowhere else does this precise mixture occur) and in part out of the fact that the meeting of those social relations at that location (their partly happenstance juxtaposition) will in turn produce new social effects (Massey, 1994, p.168).

> [Our educational system] has to foster the social goals of living together, and working together, for the common good … Our education must therefore inculcate a sense of commitment to the total community, and help the pupils to accept the values appropriate to our kind of future, not those appropriate to our colonial past (Nyerere, 1967 in Lema et al., 2004, p. 72).

The ideas articulated in the three quotes above, from very different times and contexts, and which have been introduced in earlier chapters, were instrumental in my thinking for this chapter and I place them here to frame the content of Chapters 9 and 10 for the reader and support the linking together of ideas connecting culture, pedagogy, space and the wider purpose of education.

In Chapter 8, Emmanuel, Happy and Julius's stories-so-far allowed us to see how distinctly different places are produced and there is no doubt that the children experience and negotiate the classroom, and learning in the classroom, differently from at home. Massey's (1994, 2005) conceptualisation of space, as seen in the second quote above, explains that this distinctiveness is the result of the very specific bundling and interactions of the trajectories producing that space. Using this approach, we can identify many of the trajectories that emerged in the pupils' "angle of vision" (Massey, 2005, p. 80) and were presented in their stories-so-far, including, but not limited to: togetherness, shared responsibility, the value of education, discipline and respect, family agriculture, self-reliance and examinations. We can also identify those that appear most pervasively across spaces and see the ways that the same social or cultural phenomenon can be part of the production of home and school places, but, because of its unique interaction with other trajectories, can play out quite

differently, and induce very different responses from actors contributing to and negotiating that specific place and bundle of trajectories. For example, home and neighbourhood spaces open up more opportunities for the children's curiosity and leadership.

The following two chapters further develop the idea of trajectories and adopt 'trajectories of togetherness' as a heuristic device to examine perceptions and experiences related to learning, across home, neighbourhood and school spaces, drawing on the wider data set. Rather than attempt to 'tame space' (Massey, 2005) by identifying all trajectories, as seen in Baldwin's study (2012), using this heuristic tool allows me to explore this dominant trajectory that I identified in participants' accounts as well as in the Tanzanian policy discourse. It is used here as a "guiding construct" (Ooi et al., 2015, p. 421) to illuminate the different ways that togetherness is manifested and interacts with other trajectories to produce distinct places with distinct social effects. It is not possible to look at togetherness in isolation; it is the relational aspect which is of particular interest. However, in order to look at the types of places produced by these bundles, it is first necessary to unpick them, teasing apart the constituent parts in order to better understand the ways they interact, and this is where holding 'togetherness' centrally, as a heuristic device, is particularly useful. The trajectories of 'discipline and respect' and 'the value of education', for example, which were highlighted in the stories-so-far, will be raised again here, but in relation to togetherness, and along with several others to highlight the *throwntogetherness* of different places and the social effects produced there.

At times, there might not appear to be much togetherness at all; these interactions can produce spaces where trajectories of togetherness are distorted and overwhelmed by other powerful trajectories. As we saw in Chapter 5, the FBE policy and BRN programme can produce unwanted side-effects such as disengagement, fear and exclusion. We can see the policy and the intervention as conflicting trajectories, co-producing school spaces with harmful social effects for some pupils. In the upcoming chapters, this heuristic device, will allow me to highlight instances of togetherness as a defining characteristic of place but also illuminate instances of exclusions or a squashing of togetherness in and around the case schools.

Many of the defining characteristics of togetherness, as used here, can be seen in Nyerere's quote in the opening of this preface: "the social goals of living and working together, for the common good", "share fairly", "a sense of commitment to the total community" (Nyerere, 1967 in Lema et al., 2004, p. 72). There are significant overlaps between these and other conceptualisations of 'collectivism' (e.g. Alexander, 2001, Hofstede, 1986, Hart, 2008). Alexander's primordial value of 'collectivism' that we saw in Chapter 3 is characterised broadly by "social cohesion, common ownership, shared values and norms, responsibilities before rights" (Alexander, 2001, p. 520) but it is worth remembering his assertion that it can coexist "in uneasy tension" with the other values of individualism and community (Alexander, 2001, p. 521).

I recognise that terms such as 'community' or 'social cohesion' are contested and can have multiple meanings and connotations depending on the context. In the following chapters, when they are used, I am drawing on the discourses outlined here, i.e. Nyerere and Alexander, and discussed in Chapters 2,3 and 5 and, as much as possible, I support contextual meaning-making by using the participants' own words.

Chapter 9: Trajectories of togetherness focuses on broad themes of togetherness across home, neighbourhood and school whereas *Chapter 10: "Are we together?" Togetherness in the crowded classroom* takes an in-depth look at the production of classroom space.

My commentary and interpretation in the following chapters aims to "provid[e] an overarching synthesised narrative that emerges from [participants'] accounts" (White et al., 2014, p. 382) but it is essential that this is supported and illustrated by participants' words, both to demonstrate the meanings that they attach to the phenomenon of interest, and to highlight *how* they express that meaning. To aid the reader in understanding the contexts that generated the data in the quotations, a simple code, based on abbreviations, is used. Where detail is not included in the text itself, the abbreviations in Table 29 will be used to show the participant's name, school, role and the research method that generated the data. For example, a quotation from a photo-elicitation interview with Neema, a teacher from Zamani, would be written as Neema/Zamani/T/PEI.

Table 29 - Abbreviations for attributing quotes

School	Abbreviation
Mpya Primary School	Mpya
Zamani Primary School	Zamani
Role	
Pupil	P
Teacher	T
Head teacher	HT
Ward Education Coordinator	WEC
District Education Officer	DEO
School Management Committee Chairperson	SMCC
Data generation activity	
Interview	I
Photo-elicitation interview	PEI
Walking interview	WI
Go-along	GA
Activity Club	AC
Classroom Observation	CO
Pre/post classroom observation interview	PCOI
Whatsapp message	WAM
Fieldnotes	FN

Chapter 9: Trajectories of togetherness

This chapter is divided into five main sections, looking at the nature of togetherness as a trajectory and how it interacts with others to produce spaces and places with both shared and distinctive characteristics. I first present four different ways that togetherness manifests itself across home, neighbourhood and school spaces, largely demonstrating togetherness as a strong cultural trajectory, contributing in different ways to the production of all spaces. First, we see togetherness as *community and social cohesion*. Strongly linked to that is strong shared *national and ethnic group identities*, as well as the community within the school, shown in *collegiality*. The fourth section looks at the related notion of *shared responsibility*. Finally, I will look at the two case schools and identify the ways in which, despite these multiple, shared cultural trajectories of togetherness, they are distinctive places with their own strong school identities, products of "the specificity of the interactions which occur at that location" (Massey, 1994, p. 168).

Community and Social Cohesion

The concept and importance of togetherness and cooperation pervaded the data generated by the participants in this study. Even in the simple background information forms to collect factual data, participants found ways of introducing these ideas. When asked, 'Who do you live with?', Julius wrote that that he lived with his family "and neighbours". Likewise, Martha took space on the limited form to answer "...my big brother, mum and Rwome Sosaiti", where Rwome is the *mtaa* and *sosaiti* means 'society'[20]. Likewise, as we saw in Teach the Teacher activities in activity club, the pupil participants selected vocabulary that represented both the physical and the social characteristics of their neighbourhoods, for example Julius's suggestion of, "helping each other". Zamani pupil participants were asked to do an additional follow-up activity, reflecting on the benefits and drawbacks of living in their neighbourhood. Vanesa reflected that the advantage was, "good cooperation and love; helping each other and caring for each other" and conversely the disadvantage was, "if

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[20] This use of 'sosaiti' is quite common in Kihaya. It usually refers to the local cooperative where traditionally the community cultivated the land together, sold their produce at agreed prices and contributed a percentage to the community 'pot' (Baraka, DEO/WAM).

you don't cooperate in the community, people will not love you ... if you don't help others, then they will not help you when you have a problem" (Vanesa/Zamani/P/AC). Ruta and Susan echoed these sentiments too:

> You get the help you need because there are people to help you (Ruta/Zamani/P/AC).

> When you've got a problem, they help you or give you advice (Susan/ Zamani/P/AC).

These ideas appear well-formed in the children's minds at this young age and teachers, head teachers and other education officials expressed similar views about the importance of community and social cohesion, showing that these views are expressed across a spectrum of society.

During a walking interview, Michael, a Mpya teacher, explained what he saw as a core characteristic of Tanzanian culture:

> You know, we Tanzanians, our lifestyle seems different from other societies. We need socialisation ... If you get a problem, for example, if one gets sick, or someone dies, [the] people to accompany you should be those ones with whom you are living so it's very important to be social with the people you are living around.

I asked him what he attributed this 'togetherness' to:

> Initially we were living a communal life ... People shared each and every thing. But gradually they moved; separating, separating, privatizing some things ... I think that was the problem ... So up to now, communal life it is somehow existing but not fully compared to before (Michael/Mpya/T/WI).

As well as suggesting the historical origins of togetherness, Michael flags up how it is not fixed. In this instance, we see privatisation, and the national shifts in policy since independence (Baganda, 2016) as trajectories that interact with togetherness, producing new social effects. The historical origins of togetherness and in particular, the legacy of Nyerere were also cited by the DEO when asked about what he wanted primary pupils to achieve during their time at primary school. Baraka emphasised, that in addition to literacy and numeracy, there was a social priority:

> I think for me, I would borrow some great ideas from Mwalimu Julius Nyerere, the first president of Tanzania, in his Education for Self-Reliance ... I would like [primary pupils] ... to have the skills, knowledge and attitudes which would help them fit into their communities ... and to live harmoniously in the society, with

tranquillity, but most importantly, having skills that really are needed in the community (Baraka/DEO/I).

This perspective shows that Nyerere's educational ideals, articulated in a very different time and context, are still drawn on today and sit at the intersection of Biesta's *qualification* and *socialisation* (2015), and Delors et al.'s *learning to know, do,* and *live together* (1996).

As we saw in Chapter 5, the national curriculum also contains a focus on skills and attitudes for community and nation building so it seems that this permeates perspectives across scales, from national government through district, community and individual levels. Likewise, the official philosophy of education is still framed by ESR, a policy designed in line with 'villagisation' and opposing the 'urban elite', but now possibly used more as a moral signifier than a policy intervention (Fouéré, 2014). In Massey's terms, these social attitudes and policy discourses are trajectories that co-produce multiple places.

National and ethnic group identity

Community building is an integral part of national identity, as we saw in Michael's explanation starting "we Tanzanians". As well as a strong sense of community membership, another aspect of togetherness comes through in this shared identity expressed at national and ethnic group levels. National identity and pride were mainly raised by pupil participants at both schools, whereas characteristics of shared ethnic Haya identity were only raised by adults.

For the pupil participants, their national pride and Tanzanian identity were apparent in their drawings and discussions of what makes an ideal school and in the words they wanted to teach me to help me understand Tanzanian schools. For example, in Mpya activity club, after 'work and cleanliness', the theme referred to most was 'school rituals and national identity', including phrases such as, *kuimba nyimbo za kitaifa* (to sing the national song) and *kupandisha bandera* (to raise the flag). Pupils were keen to highlight the importance of the everyday rituals that start the school day, before they enter the classroom. As we saw in the stories-so-far, the tone for the school day is set at morning parade, with whole school participation in a series of tightly coordinated drills, chants and songs under the Tanzanian flag.

In Chapter 6, Emmanuel, Happy and Julius all featured the Tanzanian flag in their drawings of the ideal school, as did all participants. Several chose to highlight this in their 'top 3' features to discuss, citing, for example, that the flag, "represents our patriotism and our nation" (Johnson/Mpya/P/AC), or, as Happy put it, "it is good for our national identity - it shows we are representing our country" (Zamani/P/AC). This shows that the children, largely due to these school rituals, feel part of a national togetherness, with a strong shared Tanzanian identity.

Less tangible social and political features of national identity tended to be highlighted by the adult participants, for example, Michael explaining about the importance of community for Tanzanians. However, when talking about the value of education and, in particular, parents appreciating the importance of education, this was more often attributed as a trait of the Haya ethnic group rather than of all Tanzanians. Adult participants who were Haya themselves and others who were from outside, highlighted that the Haya have a reputation for having, "a desire for education" (Alice/Zamani/T/I). This causes an interesting split between the united Tanzanian national identity and ethnic identities as officially the 'tribal' system was abolished at independence. Baraka explained that various strategies such as posting new teachers outside their home area, are still used to encourage mixing and harmonious living, and as a "strategy of killing tribalism" (Baraka/DEO/I) which he endorses.

Whilst recognising national identity, adult participants highlighted the distinctive characteristics that the Haya are known for, for example:

> [In] Bukoba … from the beginning, they are champions of education matters (Michael/Mpya/T/WI).

> In Bukoba, teachers are very strict. I think the commitment is something that seems to have been here for a long time because of Haya cultural practices. There is a desire for education (Alice/Zamani/T/I).

> [Education] is very important for the Haya people, even if you want to marry… it's not important to talk about the number of vehicles you have, or houses, it's about education first (Baraka/DEO/I).

These comments were made in the context of positive impact on education and were thought to stem from the legacy of Christian missionaries in Kagera. An explanatory narrative put forward by participants was that missionaries settled in the Bukoba area because of the good weather conditions and attractive environment with good farming and lakes for fishing. As mentioned in Chapter 5, one of the main ways the missions recruited was through schools. It is suggested, therefore, that the Haya appreciation of the importance of education is linked to this early and sustained access to schooling. This provides a very pertinent example of the *throwntogetherness* of place as a product of multiple entangled histories, similar to what Tabulawa observed in Botswana (2013). Any interventions in educational spaces therefore enter a constellation of trajectories (Massey, 2005).

Although this ethnic influence was talked about positively in terms of attitudes towards educating children, issues were identified in Zamani in terms of social cohesion between Haya and non-Haya staff. Two non-Haya teachers mentioned that there was some discrimination and exclusionary practices, for example use of Kihaya language, that prevented full cooperation. As ever, there are exceptions to togetherness.

In these examples of Haya identity, the bundling and interplay of trajectories are seen, and the temporal in the spatial, as the legacy of European missions and ethnic identities that precede the forming of the nation state, co-produce spaces which in turn affect how education is valued. Nyerere said, "one cannot be both a nationalist and a tribalist" (1963 in, Lema et al., 2004, p. 13) but the examples here show that national and 'tribal' trajectories co-exist to produce social space.

School community and collegiality

A distinct theme, and aspect of togetherness, that emerged when teachers were asked to reflect on *'what makes this a good school?'* was that of the school as a distinct community in terms of collegiality and cooperative school leadership. Particularly among the women teachers at Zamani, cooperation and love between colleagues was valued highly. Irene stated simply that what makes Zamani a good school was, "We have cooperation for each other. We love each

other" and likewise, Neema quickly and assuredly answered, "I like the participation and cooperation between the teachers". When probing these initial answers, it became clear that, though there were times when the teachers would turn to each other for academic support, the cooperation was more an extension of the togetherness and community support that exists at home, in neighbourhoods and in society in general.

Mary, who had been (forcibly) transferred from secondary teaching, with predominantly male staff, to primary teaching with predominantly female, noticed a distinct change in her colleagues at this level and noted how older colleagues support her to learn about wider issues in her life: "they have taught me how to live with people" (Mary/Zamani/T/I). Others talked about enjoying sharing meals and tea breaks together, support at times of bereavement and sharing ideas. This togetherness was also apparent in the ways that I was welcomed into their community. These were perhaps examples of strong community rather than a *community of practice* (Lave and Wenger, 1991).

At Mpya, where the teachers interviewed were mainly men, participants did not emphasise this collegiality as much, or regarded it differently. For example, Michael highlighted a lack of discipline or academic focus in the staffroom, saying, "it is used as a resting place, a recreational place … a lot of time is used for making stories, so this I don't like" (Michael/Mpya/T/I). Like Mary, he also came from a secondary teaching background. It seems that the 'socialisation' and communality that Michael values outside school, is tainted by what he regards as a lack of professionalism among female colleagues in the staffroom.

When discussing the "very big obstacles" he faces because of the lack of teaching resources in Braille, Erick did recognise that there was good cooperation at his school, for example, colleagues being willing to read to him so he could make notes on his borrowed Braille machine. However, he could not rely on this for every lesson:

> There are some times I failed to get someone to read for me so I go without a book into the class so I use the pupils themselves. I take one pupil to come and sit here [at the teacher's desk] and start reading

> for me, then he or she reads, and I teach but if I had my own copy [of the textbook in Braille] that would be much better (Erick/Mpya/T/I)[21].

In addition to this support from colleagues and pupils, the head teacher also provides Erick with Braille paper and he has a Braille machine on loan from the local School for the Blind. In this case, we can see Erick and his distinctive story-so-far related to his visual impairment, combining with trajectories of togetherness to produce specific local collegial and pupil interactions and dependencies. However, this necessary but forced cooperation should not detract from the wider exclusionary trajectory produced by the lack of support and resources from the government. As Erick notes,

> People say that in Dar es Salaam there are [resources] but […] I think the officers do not care much about that. When they make their programmes they don't regard such things, about braille or about blind people (Erick/Mpya/T/I).

Pius, the newly qualified teacher who was working as a volunteer, was the main one who highlighted cooperation, talking enthusiastically about the "peace and love between the teachers" at Mpya. He felt this keenly in his unusual role as a volunteer[22] and was very appreciative of the good treatment he received from his fully employed, mainly female colleagues: "They welcomed me with a good heart" (Pius/Mpya/T/I). In his precarious situation, he benefits from this school community and collegiality.

The different teachers' 'angles of vision' of these spaces, and of primary and secondary teaching, appear to be gendered with the women more likely to cite the intrinsic value of the cooperation of their colleagues and school community, separate from ideas of professional support or behaviour.

The positive effects of strong, cooperative school leadership at both schools were also cited by the teachers, WECs, and Mpya SMC Chairperson and the DEO. For example:

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[21] In both my observed lessons with Erick, he employed a pupil to sit at the front, read for him and write on the board.

[22] Pius had graduated from teacher training college but could not find a job as a government school teacher because of a recruitment freeze. His colleagues contributed some money for him and he was paid for private tuition work.

> [The head teacher] has a good heart, she is a listener … she insists on cooperation among the teachers as well as among the pupils (Jackline/Mpya/T/I).

> [The head teacher] motivates the teachers. When the results are good, she says thank you and celebrates to show her appreciation (Neema/Zamani/T/I).

This suggests that head teachers straddle the social and professional communities in their schools.

Shared Responsibility

The ideas of togetherness, community and shared identity form dominant trajectories but there are other cultural phenomena that branch off from these central concepts. The idea of 'shared responsibility' was expressed frequently by participants in relation to a range of topics and though it often seemed to be talked about quite distinctly, it appears to be intrinsically linked to togetherness and indeed is a requirement of togetherness. In a follow-up discussion with Baraka during the analysis stage, he offered his take on the relationship:

> Togetherness may be broader than shared responsibility … Togetherness makes people share responsibility. Say for instance, you live together and work together; whatever happens in a community … will be a shared responsibility, among the community with togetherness (Baraka/DEO/WAM).

Just as social cohesion was seen across scales in the previous section, so too can shared responsibility be seen to play out in different ways in different places with different actors. Attention to temporality is also essential here as trajectories are traced through periods of villagisation and urbanisation and we recall Tudge's (2008) observation that shared responsibility and social interaction at very young ages were associated more with rural children in East Africa, and that anonymity is seen as both a blessing and curse in urban life (Ingelaere et al., 2018).

Community investment in Schools

Many adult participants talked about the nature of and the importance of the relationship between the community, parents and the school. Often it was raised

by the participant without prompting, in relation to, for example, what hinders pupil learning, what makes this a good school, or the impact of government policies, such as the latest 2015 fee-free basic education (FBE) policy. This last point was talked about at length by the DEO who has a particular interest in policy changes and effects since independence. He gave an insightful account of the ways that, post-independence, the community used to have a shared responsibility for the building of new schools. This short extract gives a taste:

> Maybe they would agree each parent to contribute a certain amount, and if you don't have money, contribute maybe by human power, fetching water, bringing stones or making bricks or whatever, depending on your capability (Baraka/DEO/I).

He went on to describe how, historically, the community's physical investment in school infrastructure led to further involvement in governance and accountability:

> After building the school, they don't end up there … After that they would say, *"OK we have built the school, we have toiled … so why are the children not studying? … Why are the teachers not using the classroom? What was the reason to toil and to build?"* … So to me, we still need parental involvement because, you see, I am one person … having more than about 30,000 students, so I am unable to oversee everything going on (Baraka/DEO/I).

However, as we saw on Chapter 5, the style and governance of community involvement has shifted over time with several changes in expectations and consequences of parental involvement or lack of involvement. Baraka's nostalgia does not reflect the coercion and uncertainty that have also characterised the history of community participation in education (Vavrus, 2021). In addition, the lack of 'intergenerational continuity' that forms an important part of Hufton and Elliots's *pedagogical nexus* (2000) adds further to the uncertainty as the system has experienced continual shifts in line with changing policy priorities since the 1960s (Baganda, 2016).

Regardless of financial investment or contributions, the importance of community involvement in the primary school was also noted across adult participants. Jackson, the WEC for Kashai, raised this point, unprompted:

> We have people from society who have a desire to see the school doing well. They come here and they give us some advice on what things we can do to improve a particular school … We look at this as a good thing - it shows cooperation (Jackson/WEC/I).

In the PE interview, Michael raises this idea of social guardianship as an aspect of his neighbourhood that he likes. He takes two photographs to illustrate his point (see Figure 68).

Figure 68 - Michael's photographs of adult volunteers helping pupils at the zebra crossing to illustrate something that he likes about his neighbourhood

He explains that these adults are "normal citizens" who voluntarily help children cross the road safely before and after school:

> Our neighbours … are helping us to care for our pupils when they come to school or go back home, you see the zebra crossing, they care about the safety … I have taken these to show the way that our neighbours are cooperating with us about … the safety of pupils (Michael/Mpya/T/I).

He gives further examples of how the parents and community demonstrate shared responsibility, together with a shared regard for discipline by "catching pupils and bringing them in" when pupils are caught hiding outside the fence.

Baraka extends this idea further, explaining that it is not just the school that belongs to the community, but the child. Because he has experience of living in different western cultures, he was able to offer his own cross-cultural reflection:

> It is unlike in Australia where I once lived - each parent taking responsibility for escorting the child to school, to make sure she is safe. In Bukoba, a year-one child goes alone because the entire

community takes care of a child on the way; because after all she belongs to the community who live together (Baraka/DEO/WAM).

This was certainly true of the participants in this study who had all been walking to school on their own or with friends and siblings since they started school.

Although there is some consensus about community investment and involvement in primary schools, it is also regarded as something that is in decline since the introduction of FBE in 2015. Both Baraka and Michael, who value community involvement highly, see that the government abolition of all fees and compulsory parental contributions has resulted in the increased detachment of parents from the school. This correlation is also recognised by other teachers who think that parents now expect the school to cover all school needs and take full responsibility for their children's learning. For example, the head teacher of Zamani says:

> After the introduction of free education, parents … assume that everything is for the government so we are facing challenges … Pupils may come with no school needs … Even pens, exercise books, they don't have … Ok, so, *"go to school, it is free, GO!"* They have to support their children but they don't because they know it is free and that is the big challenge (Editha/Zamani/HT/I).

Michael suggests that this reduction in shared responsibility is because, "If something is free, it can lose value, but if you have to pay for it, you know that pain of paying, you will take very much care". Juma, the chairman of the Mpya SMC acknowledges that some parents are still willing to make voluntary contributions, for example to support his recent initiative to buy a photocopier for the school so that it is easier to print and copy test papers. Others are not willing to make contributions but he tries to persuade them and highlights the role they play in their child's performance:

> There are some parents who argue about their pupil's performance but he asked them, *"Did you meet the requirements of the school? Maybe does your child take porridge at school? Does he have exercise books? Do you make inspection of the exercise books?"* So if they manage to do those things, then in all other things he will do better (Jasson interpreting Juma/Zamani/SMCC/I).

Likewise, in his influential role as DEO, Baraka encourages parents to remember all that the government is doing and to still play their role in contributing to education endeavours:

> Don't just throw a child to the teachers and go away, but make sure that you follow. I know some of them might not have gone to the high levels of education but at least they know what a tick means. So they can go through the kids' exercise books (Baraka/DEO/I).

This interplay of togetherness and FBE, this bundling of changing phenomena, may be changing the relationship between school and community. It remains to be seen how much the shift in financial investment will impact the wider community involvement in schooling. For these urban adult participants, the FBE policy decision, taken with the intention of encouraging more pupils to enrol in school, of opening up schooling opportunities, but also of achieving short-term political goals, is seen to be affecting community investment and partnership in their local schools, and potentially of reducing some of the shared responsibility around schooling and education. If the school no longer 'belongs' to the community, what is the motivation for the community to be responsible for it? There is certainly some irony here that school fees were contrary to the egalitarian principles of ESR and were introduced as part of the World Bank led SAPs in the 1980s (Baganda, 2016), again showing the shifting trajectories over time.

Teachers' and Parents' Roles

The last section showed the ways that the community and school share responsibility for pupils and their education as part of the togetherness that has historically underpinned their society. Towards the end, we also saw that parents in particular are expected to 'do their bit'. Perhaps, as we saw, because the dynamic is perceived to have changed, and deteriorated since FBE in 2015, adult participants were keen to highlight the importance of parental support and cooperation in children's learning. Consensus on this was seen across teachers, head teacher and the WEC at Zamani, and here Alice highlights, as the DEO did earlier, the importance of parents supervising pupils' homework.

> In the issue of learning, it depends on both the teachers and the parents. If there is cooperation, the child will do well and if there is

> a lack of cooperation, their performance will drop. For me, I fulfil my responsibility of teaching and parents should also play their part of checking and seeing where the child fails (Alice/Zamani/T/I).

As well as expecting or hoping that parents will fulfil their responsibility, teachers at both schools also see themselves as having a parental role (corresponding with Barrett's *malezi (2005b)*), for example saying, "I always look [at] these children as my children" (Mary/Zamani/T/I).

This is part of fulfilling their joint community child-rearing role, but is also framed as filling a gap left by the neglectful behaviour of the actual parents or guardians. For some, this was framed sympathetically, for example, Alice recognising that some parents are *"busy sana"* (very busy) and their long work hours might prevent them from checking their child's work. Others suggest that some parents are, "lazy", "selfish", or "don't care about their children" and are not able to meet their children's material needs in terms of uniforms, exercise books, and school meals. Here we see another chink in togetherness as economic trajectories and material constraints interact with collective responsibility for children's' wellbeing. Regardless of the reason, it was common for teachers and head teachers at both schools to use their own money to buy basic materials, especially exercise books, for pupils whose parents could not provide them, e.g. "if we are sure that the parent is not able, we will give them" (Glory/Mpya/HT/I).

There is not sufficient data to conclude if parental involvement was higher at Zamani than at Mpya, though it was talked about differently. At Mpya there was more of a theme of teachers and the school filling the financial gap left by parents who could not meet their children's basic school needs or were seen as not caring. Conversely, adult participants at Zamani, although recognising a divide between haves and have-nots, and stable and unstable home environments, suggested that a lot of the parents were professionals who recognised the value of education and therefore took an active interest in the children's work. As we saw earlier, Alice and James talked about the importance of parents checking their children's exercise books and Irene posits that Zamani pupils' parents are likely to do this and generally monitor both pupil and teacher work.

> In this school I am sure that [the pupils] show their parents [their exercise books] because their parents are very very very serious in education, so they show them (Irene/Zamani/T/I).

This, combined with more accounts of Zamani pupils attending private tuition, and the fact that many parents choose to send their children to Zamani even though it is not their local school, suggests that they may get more learning input and support for learning, from parents than at Mpya. When looking at the recent PSLE results from the year that all pupils lost several months of school learning because of COVID-19 (see Chapter 7), we can start to sketch a picture of possible reasons for Zamani's sustained success and Mpya's rapid decline in results. However, this remains speculation and food for thought for further studies.

Work, cleanliness and learning skills together

The final aspect of shared responsibility is the one that came across most strongly in the children's accounts and was supported by adults' perspectives. This is the area of work and cleanliness. This is one of the areas that regularly made me feel my 'outsider-ness' and 'western-ness' more acutely (see Hart, 2008), as work is a more common and visible characteristic of children's lives in the 'majority world' whereas play is seen as more central in 'minority world' childhoods (Punch, 2003). Across both schools, across girls and boys, and in discussions of home and school, the children participants talked openly and matter-of-factly about the work they did as part of their shared responsibilities and their understanding of why this work was important. When acting out the typical daily routine of a Zamani and Mpya pupil, all pupil groups showed physical work in both places, and the word clouds (Figure 69 and Figure 70) produced from the pupils' brainstorming of daily routine activities, and drawings (Figure 71) show the dominance of work and cleanliness.
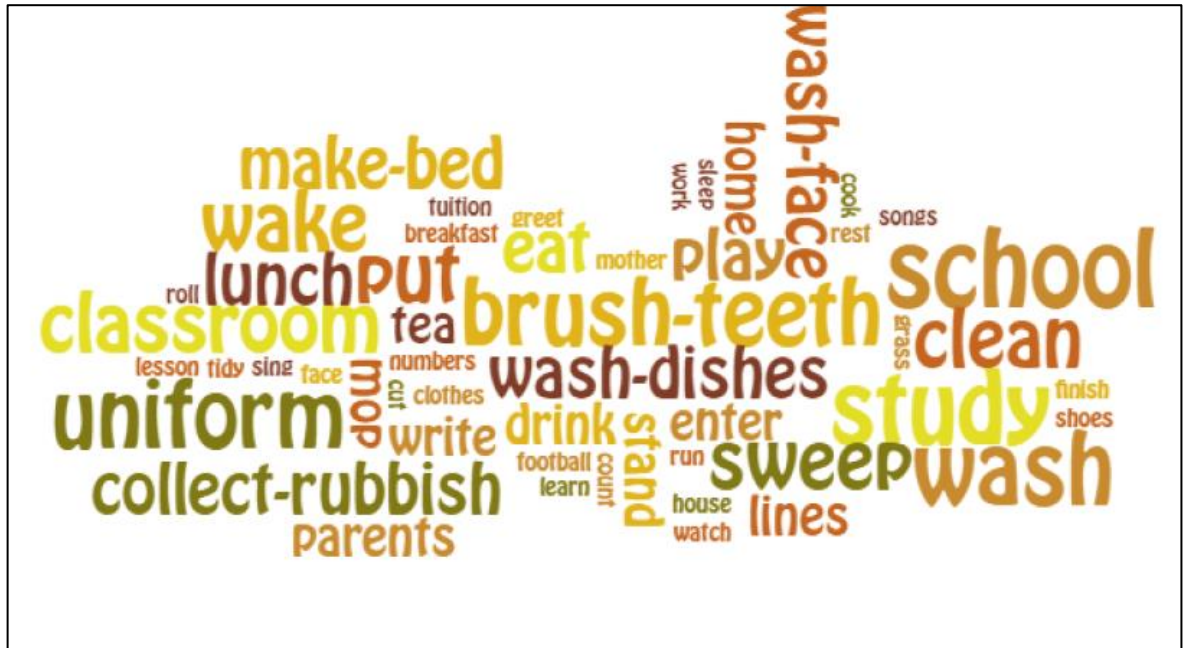
Figure 69 - Zamani participants' word cloud based on brainstorming daily routine words and phrases
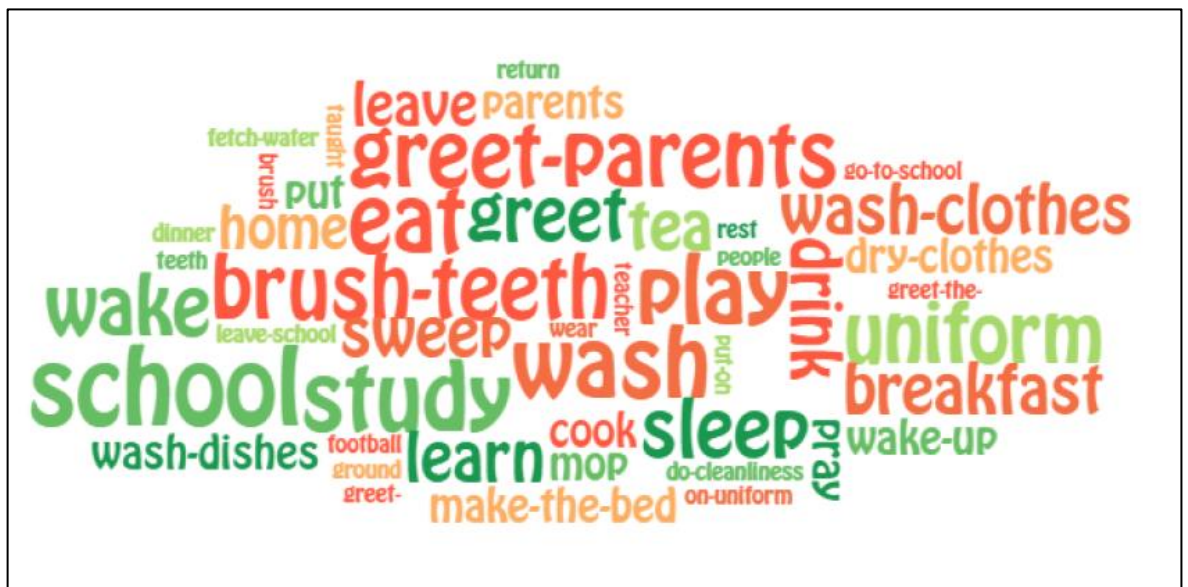
Figure 70 - Mpya participants' word cloud based on brainstorming daily routine words and phrases
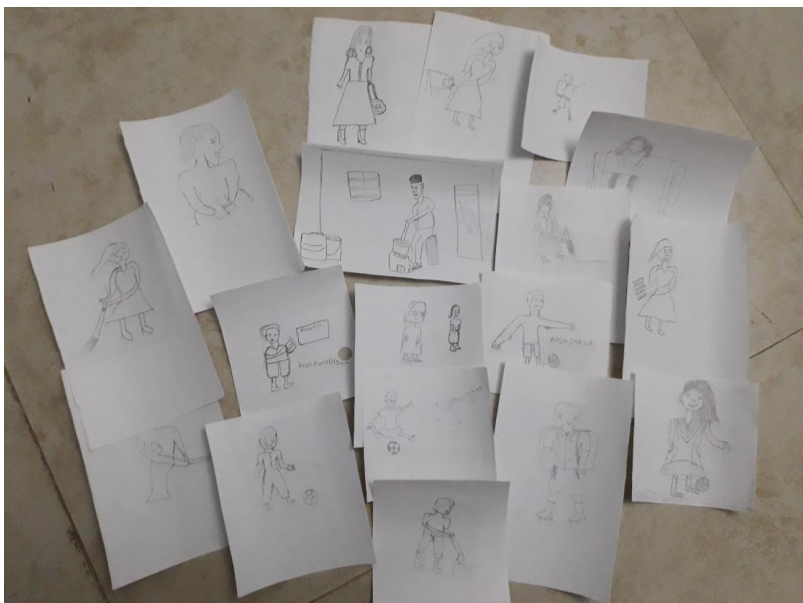
Figure 71 - Mpya participants' drawings of daily routine activities.

The pupils' work was largely in three areas: helping with farming, cooking, and, most commonly, *usafi* (cleanliness), involving collecting rubbish, cutting grass, fetching water, sweeping, mopping, doing dishes and doing laundry, especially their own uniforms. Farming and cooking were home tasks but *usafi* was done at home and school.

Considering that Mpya and Zamani were 'urban' schools in densely populated wards, it was striking that the children described their neighbourhoods in terms of characteristics often associated with rural areas, and often in relation to farming and cultivation. This highlights the "unique middle ground between semi-subsistence agriculture and the capitalistic city" (Ingelaere et al., 2018, p. 273), that secondary towns like Bukoba occupy. In the Teach the Teacher club activity at both schools the pupils wanted to teach me *ufugaji* (keeping livestock) and *kilimo* (agriculture) to help me understand their neighbourhoods.

Agricultural work was done by most of the participants overall, and all at Zamani. Fieldnotes recorded that I instructed them:

> Hands up if you have a *shamba*[23]... all of them raise hands … They grow bananas, sugarcane, maize, beans, vegetables (Zamani/FN/AC).

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[23] *Shamba* is a plot of land, usually next to the house that is used for cultivation.

This work was usually on their family *shamba* and often, like Emmanuel, back in the villages when they visit grandparents and other relatives during school holidays. A smaller number of boys had responsibilities looking after livestock, usually goats. As well as recognising that these activities were beneficial in terms of providing food for their families, the children also cited wider economic benefits, e.g. "[Agriculture] is important as it gives you food and money to meet your needs by selling the products" (Mpya/AC).

This kind of work is talked about positively in terms of the purpose but it is also highlighted as work that can be difficult and even scary. Two girls took pictures to show agricultural work as potentially dangerous (Figure 72, Figure 73):

Figure 72 - Grace's photograph of her brothers cutting a tree to illustrate something that she is not able to do

Figure 73 - Martha's photograph of working on the *shamba* to illustrate something that is hard for her

Hereneus interprets for Grace, "She thinks that while cutting tree she can make a mistake which can cause her an injury" (Grace/Mpya/P/PEI) and Martha concurs, "it's hard work and she worries about being injured" (Martha/Mpya/P/PEI).

A further two pupils took photographs (e.g. Figure 74) to show that they felt bad that their health problems meant that they could not do their share of farming or other manual work at home, showing the strength of the shared responsibility. For example, Hereneus interpreted for Oscar: "he is not fit and when he goes to farm, he gets chest pains". Oscar interrupts to add, "I want to, but I can't. But I can wash dishes, clean the house, and fetch water" (Oscar/Mpya/P/PEI).

Figure 74 - Oscar's photograph of farming to illustrate something that he is not able to do

It is necessary to stress again that the experiences here are not typical of all Bukoba government school pupils. All eight pupils who took part in go-alongs and PE interviews had *shambas* at home, and most lived in homes their parents owned. For many pupils, living in Bukoba would mean renting accommodation. Jackson, the WEC in Kashai pointed out that one of the reasons Kashai is so densely populated is that it is so cheap to rent there, with houses from 10,000 TZS a month (roughly 3 GBP). The DEO also wanted to point out that the 'urban advantage' that his rural counterparts often perceived, was often not the case:

> In the city centre, there are many families living in one room … so when the mother is cooking or fighting, there is no room for the child to start reading … someone is passing by and making noise, this one is sleeping, this one is waking up … So there are many challenges in the city centre (Baraka/DEO/I).

However, if we see the rural and the urban as part of a continuum then, for the participants in this study, they traversed this continuum daily. This raises questions about what will happen as urbanisation continues and what kind of work replaces these rural-related tasks for children living in densely populated-urban areas, without access to these green spaces. As Tudge (2008) found, it was not only the domestic work contribution that decreases for urban children but also social interaction.

As we saw in Emmanuel's story, the school curriculum still feeds into his knowledge for cultivation and he can combine it with the practical knowledge and skills he gains from his grandmother in the *shamba*. Likewise, Martha wanted to highlight that though she worked on the *shamba* together with her mother, it was at school that she was taught to, "cut grass with a sickle". This curriculum focus is part of the legacy of Nyerere's ESR. In Hereneus's rural primary school, this is still an important part of the school timetable and the pupils work in the

school *shamba*. In the urban schools in this study, however, this was not possible. Zamani's head teacher simply accepted this as no longer applicable, but the Mpya head teacher regretted the fact that it was not possible to have this component at their school, blaming the large pupil population. This raises questions about the effects of urbanisation on the continued relevance of the curriculum across urban and rural schools. ESR is still cited in the intended curriculum and remains relevant in Hereneus's rural school and for greenbelt pupils like Emmanuel and Martha, but will it become detached from its social function and becoming "remote and dead—abstract and bookish" (Dewey, 1916, loc. 150) for urban children?

Although farming is no longer possible in these urban schools, other work, especially cleanliness is done as part of the wider school curriculum, and as we saw in the stories-so-far, *usafi* is a scheduled part of the school timetable. There is a complementary interplay between trajectories of shared responsibility and discipline here, both the pupils' own self-discipline and the schools' disciplined approach to cleanliness and maintaining a 'smart' school.

In describing their daily routines, the pupils talked matter-of-factly about sweeping, mopping, fetching water and cleaning toilets and did not complain to me, although Vanesa did concede it would be better to have soap for cleaning the toilets to avoid getting fungus on her hands. The exchange below, during Susan's PE interview (Figure 75), exemplifies both the sense of responsibility and understanding of the value of the work that was expressed by several pupils.

Figure 75 - Susan's photograph of 'a clean environment' to show something that helps her learn well

Susan:	This is something that helps me learn well. A clean environment.
Rhona:	How? Or why?
Susan:	If the environment is dirty, you can get sick...

> Hereneus: … so this is a good environment so it can not cause diseases. If there are diseases, you can't be able to go to school and you miss some lessons.
>
> Rhona: What does she do to keep the environment clean?
>
> Susan: …
>
> Hereneus: They collect rubbish and cut grass to avoid the settlements of mosquitos.
>
> Rhona: Do you like doing the cleaning work or do you have to do the cleaning work?
>
> Susan: I do it because I have to
>
> Rhona: And how do you feel when you're doing it?
>
> Susan: I feel good because I don't want to get sick.

Pupils frequently cited 'eliminating disease' and avoiding getting sick as reasons for the importance of *usafi,* but they also agreed on the importance of an attractive environment conducive to study. Benson ticked *'usafi'* on his list of activities to show it was something he liked doing:

> You can get everything good and peaceful when the environment is clean. You can study well then. And it's good for your health (Benson/Zamani/AC).

However, to avoid romanticising this principled work ethic of the children, it is important to highlight Susan's response of, "I do it because I have to", which illustrates the other trajectories of discipline and obedience at play here. This is with regard to the expectation and social norm that children obey adults' orders. In an early activity club session at Zamani, when discussing daily routine and chores, I tried to ask the children, "which things do you have to do and which things do you chose to do?" My fieldnotes record what happened next:

> Some confusion here – might be language issue or concept issue? Or could be that they see the importance of all the chores and don't mind doing them … or they do it and don't question it? … I think my question is flawed (Zamani/FN/AC).

Similar to the idea that your neighbours are your extended family or that you live together with your community, it seems that the children's understanding and acceptance of their responsibility and contribution to work are firmly entrenched at a young age and so it becomes a taken-for-granted value, difficult to unpack and explain to an outsider researcher. As Hart said, "children are raised … to see themselves deeply as members of a community with a responsibility to the development and care of others" (Hart, 2008, p. 27).

The head teachers of both schools also cited cleanliness and a disciplined 'smartness' of the school environment as important characteristics of their 'good' school, but in each case the emphasis is slightly different (explored further in *School identity* section). In Mpya, with its new buildings and improved infrastructure, the head teacher is keen to point out the causal relationship between the 'smart' appearance of the school and the way that it encourages 'smartness' in the pupils and even behaviour and attitude change in the parents.

> The environment has shaped the pupils in some ways. The school itself is also the one that influences the pupils to change. … We want the pupils to look like the school (Glory/Mpya/HT/I).

In contrast to the 3-year-old school grounds at Mpya, the school compound at Zamani is 60 years old with few physical improvements but with a similarly strictly administered *usafi* regime. The head teacher there described their approach to cleanliness and how it stemmed from the strict disciplined legacy of the school administration under the Catholic sisters.

> We are insisting on cleanliness … and our pupils must know that I have to be in a certain way to differentiate me from other schools … You can meet any pupil and … *"oh they are smart! Nice!"* but they are not nice all the time … there is history to be like this (Editha/Zamani/HT/I).

The importance of *usafi* must be reinforced by parents and guardians at home as well, as pupil participants gave numerous accounts of their time spent on cleaning duties as part of their shared responsibilities at home. Figure 76 shows an extract from Julieth's 'My Learning' poster in activity club, where she annotated a timeline to show the knowledge and skills she had learned at home (above the line) and at school (below the line) since she was born. Her peers' posters contained very similar home and school learning. English translations are shown in the columns above and below the picture.

At home	to wake up early	to cook	to wash dishes	to wash clothes	to draw water	to dry clothes	to wash your feet	to boil water

At school	to learn numbers	to mop the classroom	to plant flowers	to write my name	to do exams	to play various games	to sing national and school songs

Figure 76 - Extract from Julieth's 'My Learning' timeline on her poster in Mpya activity club

As we saw, especially in Emmanuel and Happy's stories, the skills to carry out these types of tasks at home were largely learnt from parents and other relatives in one-to-one situations. Across the data generation activities with children, similar practical learning experiences were frequently raised. For example, in Mpya and Zamani activity club discussions participants talked about being taught to make chapatis as young as age 4 and 8 by their mothers and aunts; Benson's parents taught him to farm, "to get different needs" when he lived in the village as a young child; Martha and her mother "farm together"; Susan's mother taught her to wash clothes and now, "it's something that I'm good at"; and for Oscar, learning to wash clothes is a new skill, "when he saw his aunt cleaning clothes, he asked her to teach him how to clean them".

In these examples, the adult has often demonstrated and the child has practised or carried out the task several times before being able to do it independently and effectively, often with mistakes along the way, e.g. Emmanuel burning himself when learning how to cook. Several of the pupil participants described a similar process in learning to cook dishes such as rice, bananas and chapatis, with Martha adding additional information about how she remembered the steps

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her mother had shown her (Figure 77). She explained that she took some notes so that she could follow the steps next time then "she practised cooking by referring to her notes" (RA). I was quite surprised that she had taken notes to learn this practical skill and asked her about the difference between learning at home and at school.

Figure 77 - Martha's photograph of cooking to show something she had recently learned at home

Rhona:	So is it the same learning at home and at school or a bit different?
Martha:	Different
Rhona:	How's it different?
Martha:	I feel better learning at home. I'm not scared of being beaten but at school if you make a mistake, they beat you.

Across these examples, it is clear that work and *usafi* as part of the shared responsibility trajectory, often interwoven with discipline and obedience, is powerful in co-producing both home and school spaces. In both places, the work is carried out with the clear understanding of why it is important, both personally to the individual, and more widely for the community, and for economic and health reasons. In both places, the work is an integral part of the daily routine and although children may have some preferences and dislikes, for example loving washing clothes and wanting to do more (Herriet, Mpya), not liking mopping because you need to touch the dirty cloth (Ruta/Zamani), or finding doing the dishes boring or tiring (Emmanuel/Zamani), overall, it is carried out without complaint or question. Knowledge and skills are applied across spaces, though there is a question of how long curriculum content on practical skills for the *shamba* will remain relevant to pupils in rapidly urbanising contexts. The main difference is that learning interactions to develop the skills

to carry out *usafi* and other work tasks at home are largely one-to-one, experiential, and in the case of Martha and her peers, leave some room for practise and making mistakes.

School identity: production of distinct places

Although some small differences have been identified in how trajectories of togetherness contribute to the production of Mpya and Zamani, overall, we have seen some truth in Alexander's assertion that there is an inevitable uniformity across schools because of their shared national history and culture (Alexander, 2000). However, these schools were selected as atypical cases, hopefully more likely to generate more interesting insights (Flyvbjerg, 2006). In this section, I tease apart the aspects of togetherness as school identity to look at "the specificity of the interactions which occur" at each school (Massey, 1994, p. 168). This starts, however, with a common characteristic of school pride.

Both Mpya and Zamani were regarded as 'good schools' by children and adults. Children's drawings of 'ideal schools' looked very similar to their own schools; it took persuasion for them to concede that there were some areas that could be further improved. School quality was mainly seen in terms of performance, and this was given as a reason that parents chose that school even if they did not live in the official catchment area. However, there were other, quite distinct reasons that the schools are held in high regard. Here it is useful to be reminded of the translation of the pseudonyms chosen for the schools: *Mpya* meaning new, and *Zamani* meaning old.

Zamani's reputation, and the reason often attributed for its academic success, is built on the legacy of its Catholic mission origins and the continued links to the Catholic church. This is strongly associated with strict discipline and good values and behaviour. Aspects of this were reflected in comments across scales from pupils, teachers, the head teacher, WEC and DEO. For example:

> [At Zamani] they are taught discipline... the teachers have taught them how to respect people, including their parents and relatives (RA/Susan/Zamani/P/GA).

> Zamani it is under the Roman Catholic, so that discipline, it comes from there. And even parents, they know that when I send my

daughter or son to Zamani he will be taught according to the rules of the Catholic church (RA/Alice/Mpya/T/I)/

Baraka added to the story further by relating the missionary history of the school to *Ujamaa* and the gap that Zamani filled for ambitious professional parents when private schools were not allowed:

> Before the coming of these private schools … the children of the leaders … were studying there - 'special' people were studying there. And now because of that, people thought it was, or still is, a good school so … we have …many parents scrambling for that school (Baraka/ DEO/I).

These factors produce a school with a particular ethos, one that encourages hard work and commitment from teachers and pupils. I asked the head teacher if the school attracted hard-working teachers but she suggested that:

> They change according to the surroundings that they find here … even a lazy one, when he comes here, he can learn from others … it's the environment (Editha/Zamani/HT/I).

We can see that the "specificity of the interactions" (Massey, 1994, p. 168) which form Zamani, produce specific social effects in terms of school choice, discipline, performance and teachers' practices. However, as several adult participants point out, the one significant negative effect of this bundling of trajectories and good reputation is the over-crowding and increasing school population (it should be noted here that none of the pupils, at either school, complained about or even mentioned class size). Although Zamani is a government school, the land is still owned by the Bishop, so the school needs permission from him for any new buildings. The physical space has remained largely unchanged as the school approaches its 60-year anniversary. The head teacher explains the challenge:

> Even 60 years ago the class was planned for 25 pupils in the class, now there are more than 150 in the class. … the school has more than 900 pupils, but we still have 8 classrooms – 8 classrooms only! (Editha/Zamani/HT/I).

There is consensus across the Zamani adult participants that the school has not been able to build more classrooms because of the requirement for permission

from the Bishop. When probing further in informal discussions, I was told that the Bishop will only give permission for four-storey buildings on any church-owned land, partly because land in town is scarce but also because Bukoba is the regional capital, and as such should be seen as modern and progressive. Building normal classrooms would be like 'going back' instead of 'moving forward'. Again, the temporal in the spatial is very apparent here with the same mission trajectories linking not only 'thens and theres' and here-and-now, but also possible futures. This is also a reminder of the diverse actors participating in educational space, not easily classified as global, national or local, and not necessary influencing through state policy (Beech and Artopoulos, 2016).

All of this is part of Zamani's *throwntogetherness* (Massey, 2005, p. 140), and forms the school that parents, teachers and pupils are proud to be part of. As the Zamani pupils explained in activity club when teaching me the word *nidhamu* (discipline):

> This is important because if the school has discipline it will have good performance, whereas those without it will drop, and the teachers will not be respected and greeted when they enter the school. And Zamani is very good for this (Hereneus interpreting Zamani/AC discussion).

As we will see in Chapter 10, though discipline is highly valued, it has a dark side in the form of corporal punishment, which is also tied up with the missionary legacy.

Whereas Zamani's good reputation is seen as the result of its Catholic missionary history, Mpya's is strongly related to its physical newness and 'smart' infrastructure. As explained in Chapter 7, funding to build Mpya on the new site came from the World Bank and Government of Tanzania, linked to their plans for development and industrialisation, and although the buildings and layout are based on the traditional government primary school model, their newness and the addition of ceilings, strip lights, flush toilets, water tanks, electricity, fence and glass window panes make it stand out from other government schools in Bukoba and indeed Tanzania. Where Zamani's head teacher claims their Catholic legacy creates a school environment which causes the teachers to change their behaviour, Mpya's head teacher, as seen previously, thinks "the school itself is

also the one that influences the pupils to change", but in this case it is the impressive infrastructure that causes the change. Again, this is reflected in comments across the range of children and adult participants, for example:

> It's the environment... it makes students smart. Students ... appear as they are because of the environment; it changes students to be like that (Jackline/Mpay/T/I)

> The pupils themselves are proud of their school, and even the parents are proud ... There are some facilities that were not there before, so now they are able to use them ... Even about discipline, when others from outside come to school they recognize it *"ah! The discipline at Mpya is high"* so you see the behaviour of our pupils ... changes from the way it was before and now (Glory/Mpya/HT/I).

Although there is consensus that the good school infrastructure is a strong and positive part of Mpya's reputation, like Zamani, this strength does not come without problems. Firstly, the WEC and DEO highlighted the financial burden on maintaining the new school and the 'training' that was required for pupils to learn how to interact safely and appropriately with their new environment which was so different from their home environments. For example, pupils had to be 'trained' not to waste water by 'playing' with the flush toilets which led to unaffordable water bills. However, as Baraka and Glory point out, this kind of practical learning is also a valuable and transferable kind of learning. Secondly, Michael warns that the good infrastructure should not be equated with being a 'good' school:

> About infrastructures, many buildings ... it is good. But for personnel infrastructures, it is not good ... So what is inside is like other schools, it is good only when you see it from outside (Michael/Mpya/T/I).

In both schools, the interplay of distinct but complementary trajectories produces places where pupils and most teachers are proud to belong, and this school identity can be seen as another form of togetherness, something unifying the school community, whilst creating two very different schools. However, despite the positive social effects of the production of these spaces, there are also negative effects; for Zamani, the physical restrictions of church ownership and overcrowded classrooms, and for Mpya, the problematic distinction between the home and school spaces in terms of infrastructure, and the masking of other features of quality schooling by a new shiny outer appearance.

Discussion and conclusion

By teasing apart the cultural trajectories of togetherness, this chapter has shown that, as Alexander said, "the character and dynamics of school life are shaped by the values that shape other aspects of our national life" (Alexander, 2000, p. 29-30). Values of community and shared responsibilities permeate participants' accounts, showing that moral principles articulated in *Ujamaa* and ESR, and framed as traditionally African, in contexts of rural schools and villagisation remain prevalent and are repurposed in contemporary discourses and practices in very different urban contexts (Fouéré, 2014). There can be a sense that feelings of community and shared responsibility are somehow inherent; they certainly seem to start young, but a spatial view challenges the idea of culture as fixed, or these values as unchanging. Rather than seeing togetherness as the static 'essence' of Tanzanian culture or identity in and out of school, we can see it as a process (Bartlett and Vavrus, 2017c), and part of "a constellation of trajectories which, though interacting and undoubtedly affecting each other, have very different rhythms" (Massey, 2005, p. 158). These rhythms become clear when paying attention to the temporal and recognising the myriad ways that homes, schools, urbanising spaces, education systems and policies and aspects of togetherness have changed and are always changing and shifting, forcing people to negotiate spaces differently.

In this chapter, we have seen how trajectories of togetherness bend in response to other changing phenomena in the same space. If the aim of education is still to "inculcate a sense of commitment to the total community" (Nyerere, 1967 in Lema et al., 2004, p. 72), then, in many ways, it seems to have been successful for the participants in this growing urban town. In terms of global learning discourses, the value ascribed to community and cooperation and the importance of shared responsibility reflect the educational purposes of *'learning to be'* and *'learning to live together'* (Delors et al., 1996), and Biesta's *socialisation* (Biesta, 2015). Though collectivist ideas are strongly represented in the adults' accounts, there is also some evidence of some less inclusive practices and possible breaches of togetherness. In addition, discourses of national togetherness and identity have not, as planned, quashed trajectories of ethnic togetherness and they coexist, though in accounts in this study, there is minimal 'seepage' of Haya togetherness inside the school walls.

In children's accounts it seems that the discourses and practices are more closely and consistently aligned, showing these values are mutually reinforced across home and school. However, a significant part of the shared responsibility in the children's accounts was related to working on the family *shamba,* and there is still, for the pupils in this study, a useful connection between home and school learning to support this. However, it remains to be seen how relevant this is as more and more children live in densely populated urban areas with limited access to these greenbelt areas. The original rural focus of *Ujamaa* and ESR is already becoming strained and tenuous in its application to contemporary urban life, raising the question, what will urban togetherness look like? What kind of urban spaces will it create?

Finally, despite the shared features across homes and schools, we have also seen Mpya and Zamani as distinct places: "nowhere else does this precise mixture occur" (Massey, 1994, p. 168). The role of the Catholic church in creating Zamani, and of the World Bank's contribution to Mpya highlight that powerful trajectories are not always linked to culture or education policy. Unpicking these multiple trajectories has helped us to see that the "flows of influence and engagement around education are being stretched, dispersed and reconfigured in a whole variety of ways" (Ball & Junemann, 2012, in Beech and Artopoulos, 2016, p. 259).

We see that culture does not stop at the school gate, but its processes enter in different ways and produce spaces and social effects that impact individuals differently. Chapter 10 will trace these *trajectories of togetherness* into the classroom.

Chapter 10. "Are we together?" Togetherness in the crowded classroom

Introduction

> "Tupo pamoja?"
> "Ndiyo!"
>
> "Are we together?"
> "Yes!"

This short teacher-class interaction is very common in the primary classroom; we saw it in Alice's, Neema's and Jackline's lessons to check the pupils' attention and ensure the whole class was moving along together. Arguably, it is a routinised call and response but it does signpost that togetherness plays some part in the pupils' and teachers' classroom experience. Just as togetherness has been identified as a trajectory which co-produces wider school, home and neighbourhood spaces, so too is it actively creating the classroom, but it bends and weaves with multiple other trajectories, producing distinct effects in this space. This is a crowded space, both in terms of pupils and trajectories interacting and pulling in sometimes complementary and sometimes conflicting ways regarding the effects on learning. This section starts by looking at three other powerful trajectories creating the classroom space, as perceived from the pupils', teachers', and my "angle of vision" (Massey, 2005, p. 80): *Curriculum*, *Assessment* and *Inspections*. It then moves on to the human actors contributing to and negotiating the classroom space. Then I present what this bundling and negotiation looks like, the extent to which pedagogy is co-constructed by teachers together with pupils, and how the boundaries of pedagogy are policed. A comparison across the two case schools is integrated throughout the chapter.

What other trajectories are in the classroom?

Curriculum, assessment and inspections were identified as trajectories in Chapter 5. In this section, I work towards defining and demarcating these three dominant trajectories as perceived by the participants. Of course, there were multiple others, including, crucially, teacher education and development, but these were not as prevalent.

1. Curriculum

The most striking accounts of curriculum from teachers concerned their views on the series of reforms since 2015 and the impact on their classroom practices. As we saw in Chapter 5, the last five years have seen a number of iterations of the national primary curriculum. Some subjects have been merged or re-framed, and the introduction of English as a subject has been delayed to Standard 3. Extracts from the interview with one teacher[24] provides an overview of the situation from her own perspective:

Hereneus:	And also now they are using a new curriculum but they don't have enough books …
Teacher:	(interrupts) not *'enough'*! We don't have any! So…
Hereneus:	So she uses her phone to search for materials. But using the phone is very expensive because you need to have a bundle, so it is very difficult …
Rhona:	And which syllabus do you use?
Teacher:	So P6[25] will use the new syllabus but P7 will use the old syllabus but the examination will be set according to the new syllabus, but they are still finishing up the old syllabus.
Rhona:	But why did this happen?
Teacher:	Ah *serikali*! (government)
Rhona:	And the new curriculum, how is it compared to the old one?
Teacher:	Really, the old curriculum was really good …
Hereneus:	So the new syllabus, it is not good … for example, for pupils in P3, they are learning things that they were supposed to be learning in P1, or in kindergarten … They receive it negatively, because in P3 you start using simple language like *good morning* … but those things people are supposed to do in P1, so this curriculum is not acceptable.
Rhona:	And what do you think was the reason for the change?
Teacher:	Maybe the Minister of Education knows!
Rhona:	(laughing) it's top secret!?
Teacher:	Yeah, top secret …
Hereneus:	Because for teachers, they are receiving information from above, they are the implementers … The intention of the government was so that the students should complete P6 and then later enter in Form 1 because Std 7 was seen as a revision year, but later they came up with another information that they are supposed to complete Std 7, while they are using the new syllabus… so they contradict themselves …

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[24] In this instance I have not used the teacher's name to further anonymise her

[25] P6 (Primary 6) refers to Standard 6; the terms are used interchangeably.

> Rhona: So you have to suffer through all these changes?
> Teacher: Yeah, they (the government) are changing like chameleons. And we are just going as they go; today we are like this … tomorrow…?

This exchange covers a number of issues that were expressed by teachers from both schools: lack of resources, confusion over changing curricula, misalignment of curricula and national examinations and poorly communicated top-down reform.

A striking example of the lack of communication of education reform can be seen in the teacher's criticism of delaying English to Standard 3. This component of curriculum reform is linked to the government's prioritisation of Early Childhood Development and the consolidation of foundational literacy and numeracy skills in Kiswahili in pre-primary and early primary years. This is part of the global literacy and numeracy drive and in Tanzania is funded by the donor-led Global Partnership in Education (GPE) (MoEST, 2018). Though this is already showing significant improvements in foundational skills at the beginning of primary school (Mbiti and Rodriguez-Segura, 2021 in Kaffenberger and Pritchett, 2021), it is not balanced with interventions to improve English language learning in Standard 3 to 7 to prepare pupils for EMI secondary education, or with language policy change. In fact, Uwezo found that "the uptake of English in primary school is going backwards (and quite rapidly)" (Uwezo, 2019, p. 24) which is a cause for concern. The power of international priorities, articulated in the SDGs, leave teachers struggling to negotiate this 'clash of trajectories' (Massey, 2005) in the classroom, and could potentially further exacerbate the "stupidification" of Tanzanian students and future workers (Brock-Utne, 2007, p. 487)[26]. The well-intended early years intervention is interacting with a constellation of other processes, producing potentially jarring effects on languages and learning across primary and secondary school spaces.

The struggles described in the extract above were echoed in the ways that other teachers described aspects of the new curriculum: "confusing", "very shallow",

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[26] In another layer of complexity, introducing English earlier is not necessarily beneficial to English learning outcomes (see Hayes, 2017).

"not arranged well". The only exception to this was Jackline who describes it as "simple" and although she concedes that the competency-based curriculum is more difficult to implement in crowded public schools compared to private, she maintains "it is a better curriculum, despite the number of pupils" (Mpya/T/I). Interestingly, Jackline was the only participant who had received training on implementation of the new curriculum, highlighting a key issue with curriculum reform when not accompanied by comprehensive communication and teacher development and support[27]. This was also raised by several teachers, e.g. Alice: "When she was being taught in the diploma, it is quite different from what is being taught now" (RA), and Erick, who has been a teacher at Mpya for 16 years: "I don't have [any opportunities for extra training]. Our teachers want to change but we don't have extra courses, so this is kind of a problem".

Though there is a sense of the government 'out there' or 'above', as the teacher in the extract put it, in top-down reforms, we can see the entanglement of several trajectories that teachers need to negotiate in their immediate surroundings. The curriculum is seen here as the component which links the macro and micro, through a "series of translations, transpositions and transformations" (Alexander, 2001, p. 516). In this sense, there is not one curriculum trajectory, but several interwoven strands: the old curriculum and the new curriculum, and in both intended and enacted forms. This forces teachers to make decisions about how to mediate delivery of 'the curriculum'. A teacher below stated her chosen response to the problematic new curriculum and syllabus:

> Teacher: I'm using the former, I'm not using the new one, because the new syllabus is not good … The former one … is arranged well. You can read it and understand it but this one … the new one, is not good.
> Rhona: And the Standard 7 exam, it is still the same exam, yes? Is it matched to the new curriculum, or the old one?
> Teacher   Hmmm, that I don't know.

Rather than translation, transposition or transformation, this is total evasion. In this instance the teacher *is* the policy-maker: "teachers are the key policy-

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[27] A visit to Katoke TTC where I worked from 2009-2011 revealed that they are still using resources for the 2005 primary curriculum.

makers: once the classroom door is closed, it is their decisions that determine what the class experiences" (Ainscow, 2007, p. 149). Her final admission that she is not aware of the 'fit', or lack of, between the curriculum and the examination which *should* measure the learning outcomes of the curriculum is another indication of trajectories working in tension with each other, rather than complementarily as Nyerere had hoped in 1967 (Nyerere, 1967 in Lema et al., 2004). Ideally, they should be pulling together to produce spaces which encourage the most positive effects on learning. There is also a suggestion that the confusion caused by the multiple reforms is challenging the national uniformity and togetherness of approaches across teachers and schools across Tanzania. Centralised systems should see the "common and predictable" (Alexander, 2000, p. 268) mingling in the classroom, but in this case, the disconnect of trajectories is forcing the teacher to negotiate the classroom in unpredictable ways.

In addition to the confusing reforms, the lack of supporting teaching and learning materials was a key factor that teachers say both makes teaching difficult, and is a major barrier to pupil learning. This complaint was most commonly in reference to textbooks. At the time of data generation, teachers had been delivering the 'new' curriculum for about three years, but textbooks had still not arrived for Standards 4, 5 or 6. Standard 7 was still following the old curriculum and there were some class sets of books and likewise, some Standard 3 textbooks had been received. Teachers across both schools and across Standards and subjects reported on the scarcity of books, for example:

> There are few books, but also this new syllabus, the books have not yet arrived so it's hard (Alice/Zamani/T/I).

> … the lack of books … is a very big obstacle[28] (Erick/Mpya/T/I).

Although teachers were unanimous in their desire for textbooks, a far smaller number detailed the ways which textbooks could or did support learning in the classroom. Overall, there seemed to be an assumption that the textbooks themselves led to improved learning rather than the ways that the textbooks

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[28] Here Erick is referring to textbooks for pupils but, as we saw briefly in Chapter 9, he also raised the issue that there are no Braille resources distributed by the government: "I am blind but there are some books I can use - Braille. But the government does not distribute these books". In this case, he suffers a double disadvantage compared to his colleagues who are able to access teachers' notes and other reference materials.

were used by the teachers and engaged with by the pupils. Rather than being part of the curriculum trajectory, textbooks constitute their own trajectory, as a non-human actor in the classroom, they, or their absence contribute to specific behaviours and effects. For example, Mary, in reference to her Standard 3 class, included a picture of textbooks in PEI (see Figure 78), explaining that "I wanted to show that we have enough textbooks, so it is very easy for the students to learn". However, the follow-up demonstrates this taken-for-granted assumption that the book itself enables learning.

Figure 78 - Mary's photograph of textbooks to show something that helps pupils learn

Rhona:	So how do you use these textbooks?
Mary:	When we enter in the class, we enter with the textbook and we give to the pupils and we tell them maybe open to page 32, maybe there is this topic, so it becomes easy to learn (Mary/Zamani/T/PEI).

Mary provided two further examples of how probing beyond the surface-level or input/ output model of 'textbooks help learning' can highlight the importance of how and why textbooks are used. First, Mary highlighted pupils sharing textbooks as a barrier to learning (see Figure 79), but when describing how having one book each would help, her planned approach would be: "every student can go home with his or her textbook" (Mary/Zamani/T/PEI).

Figure 79 - Mary's photograph of pupils sharing textbooks

In this account, her intended use is for pupils' self-study, to support her own teaching practices in the classroom. Secondly, when asked to explain how she decides when to use the textbooks she replied, "mostly when I very tired I use

the textbook" (Mary/Zamani/T/PEI). This reflects Milligan et al.'s warning that availability of textbooks should not be seen as a proxy for effective use (2018).

The penultimate entry in my fieldnotes for the data generation period recorded an incident that occurred as the DEO and I left his office after our final meeting:

> And when we were leaving his office, he showed me all the boxes of books which had just been unloaded from a truck – the new curriculum textbooks – teachers will be pleased!

Once again, we can see that the characteristics of the classroom are not fixed and the data collected captures 'the story-so-far' (Massey, 2005).

2. Assessment: examinations, tests and marking

The stakes of national examinations at Standards 4 and 7 should not be as high as they used to be, with compulsory education being introduced until Form 4, pass rates consistently increasing and many more secondary schools receiving primary graduates. However, the scenarios depicted in Roberts's study (2015) in Chapter 5 were also seen here. Examinations still exert a powerful influence on perceptions of 'quality education' and classroom practices – it takes a long time to shake off the utilitarian view of education (Tabulawa, 2013). The examinations trajectory is represented in accounts across all scales and participants in this study, from the DEO to the pupils, stretches out to national and global scales, and is closely related to other assessment trajectories, referred to in terms of *tests, exercises, corrections and marking*.

The DEO, as ever, had a pragmatic response when asked what indicators he uses to tell if his schools are doing well. Here, he cites both the visible, measurable performance indicators of the PSLE whilst still recognising the limitations of what that represents in terms of education:

> Many people say, including my bosses … including me, we talk about the examinations and of course we are happy because the objective is easy for everyone to see - the percentage … And I told you … that we had passed 96% …in 2019 which is very good, and since this municipality began, they have never passed like that … But as far as I'm concerned … there are other areas which I think are indicators … I think I need to see these things in the community and in the broader society (Baraka/DEO/I).

He talked at length about the PSLE and its power in accountability, especially in private schools, and people's default position of "want[ing] simple things", things that can be measured easily but that ignore the complexities of the qualitative aspects of quality education, and that require more time and resources. In this, he is reflecting the criticisms in Chapter 2 that the measures for assessing quality do not capture what really matters (Alexander, 2015, Tikly and Barrett, 2011) and "we end up valuing what is measured" (Biesta, 2010, p. 26). However, his earlier quote also highlights, as in the global discourses, that everyone knows that these kind of assessments are "incomplete proxies" (UNESCO, 2004, p. 46) but their use is continually validated and accepted, and part of their validation comes from their promotion in powerful global instruments such as the SDGs.

The awards, trophies, and certificates that the DEO and head teachers shared with me, demonstrate the perceived importance of success and ranking regionally and nationally, and the Kashai WEC also admitted that they have their own local competition based on their schools' performance: "when we meet, we ask *'how is your ward?'* because we all want our ward to be the winner" (Jackson/WEC/I). However, the PSLE's limitations as well as its utilitarian function as a gatekeeper to the next level of education (Tabulawa, 2013) are widely acknowledged, for example:

> You should understand that the primary school examination, especially the Std 7 leaver, it is not an examination that teaches skills and competence, no, it is not. It is an examination that … takes them to another level of education (James/WEC/I).

The participants' accounts show that "school and life have become two different cultures with different sets of rules" (Kirschner and Hendrick, 2020, p. 234), and that school life here is dominated by examinations.

However, as we will see in this section, the dominance of the examination trajectory, or the backwash, is such that it steers schools, teachers and pupils towards this narrow focus. Finding discussion about 'good schools' dominated by talk of PSLE performance, and hoping to explore a more holistic view of 'quality', I asked the head teachers of both schools to consider other factors that told them their schools were doing well. However, both struggled, mainly

suggesting mock exams and tests as alternatives. In mild frustration, and not sure what answer I was looking for, Glory clarified:

> The main measure is the exam. We have different annual and mid-term exams. Sometimes we say that you can achieve in sports and games but if you have not achieved academically, you have done nothing (Glory/Mpya/HT/I).

This focus is reflected in the pupils' views too. I was initially surprised in the first activity club meetings at both schools that in an introductory game, all pupil participants stated that they liked tests and exams. Mpya activity club participants seemed to link liking the examination with liking or valuing the subject, for example liking science, wanting to be a scientist and therefore liking science exams. Comments from Zamani activity club also showed their appreciation for exams and testing, for example, "it lets you see if you are able or not" and "it makes competition". When asked how they respond to a low mark, pupils suggested, "I increase my effort and study more", "I ask for help", and "I revise".

Both pupils and teachers talked about the ways that assessment helps learning. There is a subtle difference in emphasis between the perceived benefits of correction and assessment in the two schools. Exercises, correction and tests were seen as important for learning by participants in both schools, but at Zamani, pupil participants highlighted the importance of the outcome of the pupil knowing their own abilities and being able to redirect or increase their efforts as a result. In the pupils' own group analysis on this topic, they concluded:

> [We like it when] the teacher corrects us because we get to know the questions where we made mistakes and we do them again carefully and then we get it corrected (Zamani/P/AC).

> [We] like it when the teacher gives tests or exams, because we are able to assess ourselves if we have ability to do those questions we were taught (Zamani/P/AC).

This indicates the positive backwash effect of assessment on pupil motivation and performance as was highlighted in the discussion in Happy's story-so-far when she explained about her motivation for self-study based on class ranking.

This could link to the findings in Chapter 9 indicating that the children at Zamani have more support (and pressure?) for learning outside school, helping motivate them, as "their parents are very very very serious in education" (Irene/Zamani/T/I). There is also an echo of Adamson's findings that the aspiration of *'soma kwa bidii'* (to study with effort) is empowering for pupils, "allowing [them] to feel optimism and a sense of agency" (Adamson, 2020b, pp. 178-179) despite the significant barriers they face.

In the subsequent section, we will see the clear school-level focus on testing and performance, especially in standards with national examinations. Here, Happy and her peers have highlighted the importance to them of monitoring and improving their individual performance, and the role that assessment plays in this. It seems that the pupils map their own trajectories to examination and assessment trajectories and are guided by them. This harks back to the *pedagogical nexus* (Hufton and Elliott, 2000), and raises the question if there is the potential for this assessment trajectory, when interacting constructively with curricular and other trajectories, to open up possibilities for more meaningful learning; to co-produce spaces where pupil motivation and self-awareness could be directed towards new valued learning outcomes, broader than accumulation of factual knowledge.

The overall theme of assessment, directed towards the examinations, came out as a priority area for teachers too, but with a distinct shift between the two schools. At Mpya there was strong support for more formal testing, especially for Standards 4 and 7, the national examination years. However, at Zamani, in line with pupils' accounts, there was more emphasis on ongoing assessment through exercises and correction. Neema, as Academic Teacher, prioritises assessment as a key responsibility in her role: "I … make sure that teachers are giving and correcting exercises" (Neema/Zamani/T/I) and it was a recurring theme in teacher interviews, suggesting that this was a strong part of the school culture. For example, Mary explains that, though the marking work load is huge, it is something that helps her teach well (see Figure 80).

Figure 80 - Mary's picture of her mountain of marking

> The pupils are many but we try our level best to mark the exercise books. It also helps us to know the difficulties in the learning process (Mary/Zamani/T/PEI).

There is certainly alignment here with pupils' expectations of regular exercises, correction and feedback, and both teachers and pupils making use of the assessment results to promote further learning. At Zamani, there seems to be a more regular cycle of lesson input, assessment, and acting on assessment. One teacher even did this on Saturdays:

> I have to take my time to cover on Saturday, to give them more exercise and to repeat again what I have already taught so that they can understand (Mary/Zamani/T/I).

This shows recognition that, "children do not learn simply because they are assessed" (Barrett et al., 2015p. 235) but here the assessment information is not so much leading to "changes and improvements in pedagogy" as simple repetition of lesson content to ensure the content has been memorised.

In Mpya, however, the focus is on preparation for national examinations through practice tests. One of the reasons that I was able to access the school compound to run activity clubs during the school holidays was that Standard 7 pupils were attending extra classes, 5 days a week during the holidays.

Teachers Michael, Erick and Pius all spoke about testing as something positive that they and the school were doing to support learning. Erick focused on what he was doing in class, including designing exercises to replicate PSLE test items and explicit use of past papers:

> They have 45 questions [in the PSLE]; 40 questions are multiple choice, and those 5 questions can be *explain*, or *mention*, those types of things so we just teach all the topics, so that they know each and

every thing, because we don't know, during the exam, which question will come (Erick/Mpya/T/PCOI).

Pius explained about the two different additional morning and afternoon sessions for Standard 4 and 7 pupils: *speed tests* and *Masomo ya Ziada* (additional lessons – or here referred to as 'remedial lessons')

> Speed tests is a kind of test given early in the morning when they come to school. Other classes continue with cleanliness outside but P4 … begin the examination. And then if they fail, teachers come and do corrections. You know in Std 4 examinations, several questions are repeated so it will be easy for them to pass (Pius/Mpya/T/I).

> [Remedial lessons] are evening classes, they start at 8 o'clock (2pm) and when they have finished their cleaning they go back to the classroom and they have lessons until 10 (4pm). It is compulsory for [examination class 4 and 7] to be in remedial classes (Pius/Mpya/T/I).

Pius explains that these lessons have been made compulsory to discourage pupils from attending extra tuition with 'street' teachers.

Standard 7 pupils also attended additional after school classes at Zamani, but the focus on examination preparation was not as visibly pervasive. Whereas the Academic Mistress at Zamani flagged up the importance of checking on exercises and marking, Michael, in his position as Academic Master at Mpya, highlighted the school's approach to monthly testing:

> It's the plan of the school that every month they should have examination … There is a contribution from the parents, they will contribute a little amount of money to enhance that examination (Michael/Mpya/T/I).

The parental contribution he refers to is for printing and copying test papers. This had become a major issue; Mpya had just become the proud owner of a new photocopier. The SMC Chairman mentioned this as both a challenge and key achievement as he had initiated coordination of contributions for this important purchase. Towards the end of the data generation period, I attended a Mpya parents' meeting where the new photocopier was number one on the agenda followed by "academic performance and results from monthly tests, attendance and nutrition" (Mpya/FN). The bursar addressed the gathered teachers and parents: "when pupils brought monthly tests home before, they could only see the answers not the questions and now this will help" (Mpya/FN). This signals the shared interest and investment, in time and money, in ongoing assessment

through testing across the school and home, with parents supporting this focus, all geared towards good performance in the PSLE. Although 'nutrition' is on the agenda, and there are strong links between school-feeding programmes and improving learning outcomes (WFP, 2020), the investment at this time is focused on the PSLE. When asked what happens with the results of these monthly tests, Michael explains:

> It enables a teacher to know what point their pupils are at … From there, they see what can we do in order to make sure that before we get to that time (PSLE), we must have completed this one … And we create an atmosphere of competition, among the pupils themselves but also our school and other schools (Michael/Mpya/T/I).

Just as the idea of ongoing class exercises and correction seemed to represent Zamani school culture, formal testing, in and outside timetabled teaching, seems to permeate many aspects of Mpya culture.

Although the two schools' approaches to 'continuous assessment' and examination preparation appear with slightly different emphasis, there are commonalties across them. Most importantly, both formats, exercises and tests, involve short answer questions with simple right and wrong answers. This is influenced in part by the format of the PSLE which includes multiple choice and short answer questions, but is also strongly influenced by class size and the time demands of marking. This, in turn, is influenced by the prospect of inspectors' visits when they will check that each lesson taught is evidenced by a written activity in the pupils' exercise books (see next section: *Inspections*).

Given that this is a clear case of the powerful but negative backwash discussed in Chapter 2, there is perhaps some room for hope as the very recently revised PSLE format for English, for example, now includes an element of listening comprehension. This suggests that teachers may make room for listening comprehension in their lesson activities in order to prepare their pupils for the examination, stepping away from the current focus on reading and writing, influenced by the old PSLE and inspection formats, and indicating a potential small step towards "high-quality examinations, help[ing[promote high-quality pedagogy" (Somerset, 2011, p. 144).

Once again, although we can tease apart the trajectories related to examinations to describe and examine them, it is clear that they are intertwined

with multiple others in the classroom, and branching out across home and community spaces, and extending to powerful global assessment trajectories.

3. Inspections

Although the data directly referencing inspections in this study are less common than for curriculum and assessment, there are sufficient to identify this as a trajectory in itself. As we saw in Chapter 5, as part of the drive for quality education, the MoEST has shifted from an inspection system to a SQA system. A member of staff from Cambridge Education, funded by FCDO to provide Technical Assistance for SQA, informed me that the new system is regarded as a 'success story'. However, although I visited the shiny new SQA offices in Bukoba, their Whole School Approach to supporting and strengthening quality in schools was not referred to by any of the participants. Instead, what was raised by teachers were issues about having to design classroom activities to meet the inspectors' expectations, i.e. that every lesson should have a written entry in the pupils exercise books, showing the date and topic and evidence of the lesson that took place, in the form of a written and marked exercise. For example, Mary described how she plans and marks exercises for her large class:

Rhona:	So how do you plan what exercises to give them?
Mary:	I only give them only a few questions, and sometimes we also mark in the class, so they exchange their exercise books and mark with pencil and then I will come and mark with a red pen.
Rhona:	Is it enough to have the pencil mark? Is it necessary that you put the red pen?
Mary:	It is necessary, so that when those inspectors come, they tell us, why have you not marked, so it is very necessary to mark the exercise book (Mary/Zamani/T/PEI).

If her aim was to try and ensure that the pupils had understood the lesson, that they knew the reasons for any errors, and knew the correct answers, then teacher-directed peer-correction could meet that aim. However, the extra time to go over the answers with red pen, was purely to provide evidence for the inspectors. In other informal discussions with teachers in staffrooms when they were completing marking, this was given as a requirement. As mentioned in the *Curricula* section, and seen in Barrett's Tanzanian research, teachers' flexible

approach to the timetable could be due to the fact that "teachers perceived leaving books unmarked to have graver consequences than leaving classes untaught" (Barrett, 2007, p. 284).

Hereneus and I often discussed the kind of activities we were able to do with the participants in activity clubs because of the small number and my access to resources, and how they might be adapted to implement with his larger classes. After the English language session on giving directions, where the participants constructed a 'map' of the town in the playground and asked for and gave oral directions to their partners (see Figure 81 below), my field notes record the following:

Figure 81 - English session in activity club - 'Giving directions in a town'.

> Discussion with Hereneus after AC focused on how often my lessons don't involve written exercises … and how for them they must include it so that when inspectors come, they can see evidence that every lesson has been taught (Zamani/FN/AC).

Even though the new curriculum includes competencies such as oral communication in Kiswahili and English, there is still an expectation that there should be a written exercise as evidence for each 40- or 80-minute lesson. In subjects, such as English, where *language ability* rather than *language knowledge* is where the pupils can really benefit (Sowton, 2021), this narrow focus has particularly serious implications. In this case the teacher's own learning experience, the influence of the PSLE, the length of period, the number of pupils (and potential noise that oral practice would produce), and meeting the perceived requirements for inspectors, all direct teachers towards knowledge of language and short written, exercises in English. This specific combination of intersecting trajectories produces a classroom with a very limited range of learning activities.

These examples show that the 'success story' of SQA has not yet trickled down to the school level in Bukoba and that there is a time-lag between inspection and SQA trajectories. In February 2020, about a year after this discussion with Hereneus, I received a message from him to tell me he was happy to bump into one of the study participants at a three-day workshop on SQA. I checked what this meant and he replied: *"inspection is no longer applied"*. Once again, we see the importance of seeing phenomena as unfixed and changing over time. I do not expect that the shift to SQA will change teachers' practices quickly or dramatically on its own, but perhaps as one trajectory fades out, another will enter the classroom space, interacting with others in more productive ways, and opening up new opportunities for learning.

This section has looked at three powerful and closely related trajectories contributing to the creation of Zamani and Mpya classrooms: curriculum, assessment and inspections. In different ways, they all contribute to particular social and pedagogical effects, sometimes pulling together in the same direction, for example examinations and inspections both encouraging teachers to ask for short, factual answers; and at other times, co-existing in tension, for example the new intended curriculum pulling in the opposite direction from the current examination. The time lags and variety of ways that teachers negotiate these changing trajectories suggest that there is potential for change if better alignment is achieved, for instance better understanding and support for the new curriculum through in-service continuing professional development (CPD), and communication campaigns to increase awareness of SQA and changing demands in evidencing pupil learning.

Who is together in the classroom?

Negotiating competing trajectories in the classroom is a challenge for teachers, but this is further complicated by the number of pupils, each with their own story-so-far. As we saw in Chapter 8, Emmanuel, Happy and Julius were in classes of 138, 107 and 42, respectively. This challenge of large class sizes was immediately apparent in observations and my own teaching sessions, and across all interview activities with adults, in all roles, this was raised. For example, three of the four teachers who participated in PE interviews, took pictures of

their overcrowded classrooms to illustrate *something that makes it difficult to teach* or *something that makes it difficult for pupils to learn*. Mary went so far as to stage a separate picture to illustrate what she sees as the ideal class set up (see Figure 82):

> Mary: I took this picture to show that, for example, when students are few like this, it is very easy to teach them.
> Rhona: So if it was like this…
> Mary: It is VERY easy and all the students would understand
> (Mary/Zamani/T/PEI).

Figure 82 - Mary's staged photograph of a class with few students

Adult participants attributed the recent increase in enrolment and classroom overcrowding directly to the President Magufuli's FBE campaign and policy. This was seen across all roles, from the teachers up to the DEO, as the examples below show, although it was highlighted slightly less at Mpya where they have more classrooms:

> After free education … there are so many pupils because the parents, now the government have put a law that if you are not going to bring your child at school, you're going to be against the law (Mary/Zamani/T/I).

> All these things (discussing teacher and classroom shortages) began the moment the government announced fee-free primary education. Then the enrolment grew up, the number of students increased in the classrooms so I don't know if maybe they would have started with increasing the number of personnel before that policy … but who should we leave at home? (Baraka/DEO/I).

Generally, FBE is seen to have a positive, encouraging influence on parents to send their children to school, but Mary's point above shows another side which was also highlighted by Vavrus, that the increase in school enrolment is not due

to the egalitarian abolition of school fees, but rather "the threat of punishment by the state if parents didn't send their children to school" (2021, p. 260). This is a distinct form of togetherness through compliance, showing the power relations between global promotion of UPE and national enforcement of compulsory schooling (linked with political campaign promises) presenting teachers with a crowded classroom to negotiate. Baraka's question of "who should we leave at home?" also gets to the nub of issues of access, quality and inclusion which are central to the debates explored in Chapters 2 and 3. These are useful reminders of the messiness of causality and consequence and the multiple trajectories that interact.

Although FBE and its legal enforcement was perceived as the cause of large class size, the challenges associated with it vary. Some are physical issues such as cramped, overcrowded conditions and noise, e.g.:

> If I had 40 or 50 pupils, there is no noise in the class, I control the class then …. But there are many so they make so much noise (Jackline/Mpya/T/PCOI).

Other issues are related to the knock-on effect of the kind of exercises and activities that teachers can do with such large classes, e.g: "I can only give exercises that are shorter and only possible to mark quickly" (Mary/Zamani/T/PEI).

Here we begin to see how the restrictive trajectories of curriculum, assessment and inspection are compounded by the large class size, co-producing a space that is very difficult for teachers to negotiate, and leaves little room for individual pupils' stories-so-far. Indeed, the main challenge that teachers cited was related to the need to move the whole class through the curriculum at a pace that was not suited to all pupils in, what teachers perceive as, very mixed classes. Michael expresses this clearly:

> I cannot wait for them all to be ready, because I need to complete the syllabus. Because there are many, you don't have time to deal with each pupil, so those … who are fast learners are those ones to win (Michael/Mpya/T/I).

Several teachers expressed this conflict between dealing with the individual and the need to move the whole class forward together. Because there are so many pupils, and especially as the teachers all teach multiple classes, knowing individuals' character and abilities is not possible. This is a stark contrast to the case of the Russian classes in Hufton and Elliot's *pedagogical nexus* (2000), where primary classes generally had the same single teacher for several years allowing long-term relationships and familiarity to build. When describing their classes, teachers in this study invariably grouped their pupils into broader, often overlapping categories, characterised here either as 'fast and slow learners' or the 'haves and the have-nots'. The former pairing relates to pupils' speed and ability to understand curriculum content and the description of fast or quick learners and slow learners was consistent across both schools, e.g.:

> Others are quick learners, others are slow; very very slow learners (Irene/Zamani/T/I).

> I have pupils who can understand quickly and others very slowly - slow learners, so that can cause me not to finish up fast the syllabus because I try to help also those who are slow learners (Erick/Mpya/T/I).

The latter pairing, the 'haves and the have-nots', refers to pupils' socio-economic background, often also seen as relating to pupils' academic performance. We saw one manifestation of this earlier as teachers stepped in to help some pupils who did not have exercise books and other basic needs for school, but many examples were given.

However, one particular area where the 'have-nots' seem to suffer is when it comes to *uji* (millet porridge) which is only given to pupils who have paid the monthly fee[29] for provision of one school meal a day. Whereas it was only the adults who mentioned the distinction between pupils who have and do not have books and uniforms, pupil participants also mentioned the distinction between those who take and do not take *uji*. For example, Emmanuel started his go-along by pointing out the small metal shack which serves as the Zamani kitchen by simply saying, "This is the place where they make *uji*. Only those who have paid

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[29] A participant at Mpya PS informed me the fee was 4000 TZS/ month (c. 1.25 GBP) and another at Zamani quoted 3000 TZS (0.93 GBP).

can eat *uji*." There is not time to collect and drink *uji* during break time so those who have paid sit at their desks drinking it amongst their porridge-less peers; a very visible sign of inequalities in the classroom. I observed this several times during lesson observations at both schools, but Mary also highlighted this issue: "some have got porridge and others have not ... it is very difficult to learn while you are hungry" (Mary/Zamani/T/PEI).

Jackson, the Kashai WEC, suggests that 'not having' when those around you have, can lead to psychological effects and increase the chances of truancy: "so if one student takes porridge and another student doesn't ... it makes a variation and some of the students, they start isolating themselves" (Jackson/WEC/I).

Although the recent Uwezo survey (2019) recognises regional and district disparities in provision of school meals, there was no mention of these harmful disparities *within* schools. What was clear, however, was that there was confusion among parents about who should be responsible for providing meals and what school funds cover (Uwezo, 2019). This highlights further hidden aspects of FBE where parental contributions have been abolished but school capitation grants do not cover school meals, leaving a gap (HakiElimu, 2021). In the donor-supported ESDP priority programme for primary education, the strategy is to, "encourage and/or develop community-based solutions to the provision of learning materials, porridge and lunches at school, according to ... cost-sharing arrangements" (MoEST, 2018). In a fragmented approach, some regions are supported in this by the World Food Programme but not Kagera. Cost-sharing in Mpya, as we saw in Chapter 9, prioritised testing over porridge as parental contributions were collected for the new photocopier. Both school-feeding and testing trajectories can be traced across global and national discourses but when they intersect in the school space, and teachers and parents are forced to negotiate these trajectories, the effect is that all pupils are tested, but only half are fed. This stands in stark contrast to the accounts of togetherness and shared responsibility presented in Chapter 9, highlighting a harmful collision of trajectories (Massey, 2005).

One final area where the 'haves' and 'have-nots' categories play out starkly in terms of impact on learning is in the distinction between those who attend private tuition out of school, and those who do not. In the pupil stories-so-far,

we saw that both Emmanuel and Happy attend tuition 5 days a week after school, and Benson and Susan, the two other core pupil participants at Zamani were in the same situation. There was consensus between Zamani pupils and teacher participants that tuition classes were generally smaller, used similar methods and tended to teach the topics ahead of the school, for example, Benson explained, with Hereneus interpreting:

> They cover the same topics but in tuition, for example, if they are on topic 1 at school, they will be on topic 3 or 4 in tuition, so he says that in the classroom it's like revising (Benson/Zamani/P/PEI).

There were mixed responses about the relationship between tuition and classroom learning. Alice reported that she did not approve of the tuition classes "running ahead" of the school (though she paid for her ward to attend private tuition, and her own child went to private school), but Mary (whose own children attend private EMI boarding school) liked this parallel system, claiming:

> It is good, because it makes them to know many things … when they go to tuition, they mix with other pupils who are coming from other schools, so it is very good and it makes it easy to learn (Mary/Zamani/T/PEI).

The WEC for Miembeni also regards private tuition as beneficial and sees the prevalence of tuition centres in Bukoba as part of an urban advantage:

> We are lucky, in urban, at least we have centres on every corner, but maybe the problem it is in rural (James/WEC/I).

These views, supporting a parallel or 'shadow' education system (Bray, 2021), seem to be firmly related to the examination and academic performance trajectories, and selectively ignore the inequalities they reinforce and the challenge they present to egalitarian togetherness. Each individual, and their family, are responsible for ensuring the best possible learning opportunities for individual gain. As Hereneus reported in Happy's story-so-far, "she's the one who likes to study because the benefits for studying are for herself" (Happy/Zamani/P/PEI). I am reminded of the "uneasy tension" of collectivism co-existing with individualism (Alexander, 2001, p. 521), but also that this particular struggle has existed in different forms since ESR when Nyerere first

tried, and failed in his ambition "that examinations should be down-graded in Government and public esteem" (Nyerere, 1967 in Lema et al., 2004, p. 79).

Conversely, Mpya pupils did not raise the issue of tuition during their data generation activities and, as Pius explained earlier, the school discouraged parents from sending their children to 'street tuition' and instead, required pupils in the national examination years 4 and 7, to attend compulsory 'remedial' classes five days a week after school, run by teachers so that they were able to consistently assess pupils.

Overall, then, the categorisation of pupils into fast/slow and 'have/have not' is a response to the challenges of diversity in very large classes. This section has shown that the large class size itself presents challenges for the teachers, both to pay attention to individual pupils with their own stories-so-far, and to move together in a collective learning endeavour. Individual and home trajectories, such as economic status, combine to have homogenising effects on pupils, placing them into broad categories that reinforce inequalities, challenge attempts at togetherness and create a stark divide which contradicts the egalitarian aims of FBE. This division *within* schools is a reflection of the private-public school divide in wider society. These challenges are compounded by the crowding and clashing of restrictive trajectories associated with curriculum, assessment and inspection that produce classroom spaces that leave teachers and pupils with limited options in how they negotiate them.

Co-production of classroom space - Co-construction of pedagogy?

> I was interested because someone said that teacher and pupil are one thing. You can't separate the teacher from the pupil. She said, *"Nobody is called a teacher, if there is no pupil"* (Hereneus, Post-activity club discussion, Zamani).

This insight that struck Hereneus about the symbiotic teacher-pupil relationship came out of an activity club discussion about what makes a good school. One group had been keen to highlight that it was not just the teachers, but also the pupils; you cannot have one without the other. This is an apt introduction for this section on the co-construction of pedagogy (Tabulawa, 2013), exploring the

extent to which pupils are complicit in and actively shape teachers' practices, rather than being passive "'pawns' that merely respond, in a rather mechanical manner, to the teacher's actions" (Tabulawa, 2013, p. 71). We have already established that the classroom space is co-produced by the interaction of human and non-human trajectories but what 'pedagogical effects' are produced as a result?

As we saw in the *Assessment* section earlier, examinations, testing and ongoing assessment of factual knowledge are valued by pupils, teachers and other education officials. Although some concern and caveats are expressed regarding the dominant role of examinations, the influence they exert on teaching and learning is clear. As Tabulawa says, "adherents (teachers and students) of a paradigm tend to behave in ways that reproduce the paradigm" (2013, p. 72) and in this case, the paradigm is centred on examination performance, more than the newly reformed curriculum. That the PSLE has remained largely unchanged during the recent reforms, means that it is a stable reference point in uncertain times when teachers have received very little support in implementing the new competency-based curriculum. This does not mean that teachers do not see the need for change. As Michael said, "where we have come from is different from where we are going to" (Michael/Mpya/T/WI), showing that he knows that the education his pupils need is different from what he himself experienced. Pupils certainly do not talk about their learning in terms of skills or competences but rather in terms of 'gaining knowledge' in line with their requirement to pass knowledge-based tests. What then does this mean for pedagogy? Which pedagogical practices are used by teachers and expected by pupils to ensure that they are able perform well to achieve these specific academic outcomes? To what extent are these expectations and practices aligned?

'Quality education?' – a shared understanding of 'good teaching'

The main aspects of teachers' practices that were seen as supportive of learning and a priority for pupils were the use of examples and the structured sequencing of tasks. For example, Kaspet at Zamani explained that he likes when the teacher gives examples as they, "help us understand more easily than when the

teacher comes to class and only gives exercises". In the pupils' own analysis, the Zamani activity club group concluded that,

> 5/8 [pupils] say they like when the teacher gives examples. The possible reason is that if the teacher gives examples the pupils will understand how to answer the questions (Zamani/P/AC).

In the follow-up group discussion, the participants continued to stress the importance of examples, especially in a new topic, to help them understand and complete exercises easily.

In addition, other pupils were able to outline longer sequences or combinations of activities that support their learning, still including use of examples. For instance, Grace at Mpya explained that she had recently learned how to multiply decimals (see Figure 83) and that it helps her understand when her teacher, "after giving the formulas and giving some examples, he lets her to practise so that he checks she can understand the questions" (Grace/Mpya/P/PEI).

Figure 83 - Grace's picture of her maths exercises

Similar sequences were outlined by pupils at both schools and the main steps in these structured, or scaffolded, sequences, shown by pupils' key words, are laid out in Table 30 below.

Table 30 - Outlines of teaching sequences that pupils think help their learning

Happy	Susan	Kaspet
• explain • example • check • more help	• example • exercises • check	• example • exercises
Grace (maths) • formula • example • practice • check	**Oscar (geography)** • examples • practice • check • help with more examples if not understood	

The example sequences in Table 30 represent ideas from both boys and girls in Standard 4, 5 and 6, and come from both case schools. All of them include use of examples to provide extra support for understanding and the more detailed, multi-step sequences also include some kind of teacher or self-assessment and feedback. These components are elements of structured, whole-class teaching as seen in approaches put forward by, for example, Abadzi (2006) and Rosenshine (2012). However, as with any pedagogy, it is *how* the approach is implemented that counts (Westbrook et al., 2013). These sequences map on very neatly to the descriptions of Neema, Alice and Jackline's lessons, suggesting that the lessons like these that the pupils are experiencing, are examples of the teaching that they want and value. This stands in stark contrast to the findings in Sakata et al.'s (2021) study where pupils' preferred learning activities, e.g. discussion and group-work, were at odds with the activities, they usually experienced.

Teachers' accounts of methods varied more than the pupils', reflecting the 'pedagogy as ideas' that accompanies their actual classroom practices and the selected versions of practices they chose to talk to me about. Like the pupils, it was common for the teachers to list discrete activities that they consider helpful for learning, but the teachers covered a wider range, including: use of teaching aids, guiding questions, simple explanations, songs, stories, repetition and, like pupils, examples. Examples of these activities were seen in observed lessons and several of these can be found in the lesson descriptions in Chapter 8.

There were also teachers' accounts of activity sequences which were very similar to the pupils', for example, Neema, emphasises the move from oral whole-class questions to individual written exercises:

> First, I ask oral questions, face to face, then I also … in another time I'd put them in groups for discussion but because there is such a big number, I can't do it. I will deceive you! Maybe, it's just an example. When we have finished doing questions orally, then I tell them to write in their exercise books (Neema/Zamani/T/I).

As well as showing the sequence of activities, Neema's description above also includes recognition of a difference between the methods she uses, and those that she could or 'should' use if conditions were different. This was echoed by other teachers at both schools, for example, Erick at Mpya:

> Rhona: Can you give me an example of something that you do…that helps the pupils to learn well?
>
> Erick: Firstly, what I'm using, or what I should use? (laughing)

In these examples the implied and actual 'should' referred to activities such as group discussion which are often associated with 'participatory methods' and are nominally promoted in the curriculum in line with ESR principles. None of my questions introduced phrases such as 'participatory' or 'learner-centred' as I specifically wanted participants to describe and 'name' classroom practices and broader approaches in their own terms, so any occasions when these terms arose were initiated by the participant.

Mention of participatory approaches at Zamani was related to the length of period and its impact on their teaching practices. The head teacher and Alice both saw these approaches as incompatible with a 40-minute period. Here, Alice outlines her own pragmatic solution:

> In single periods, I ask questions and they raise their hands, but in double periods I can ask them questions … and put them in groups and they discuss (Alice/Zamani/T/I).

These teachers perceive the *rigidity* of time (see Alexander, 2000, p. 415) in the curriculum as a constraint and see participatory approaches as inherently taking more time.

Although some participants discussed perceived benefits of 'participatory

approaches', none of the teachers at Zamani offered use of 'participatory methods' as something they used to help pupils learn, and of the eight lessons observed there, none demonstrated the use of pair of group work for pupils, or any other alternative pupil involvement. This demonstrates a professional togetherness in pedagogical approach as teachers negotiate classroom trajectories in the same way, challenging the officially sanctioned approach, but in line with what is perceived to be required to meet performance expectations. However, at Mpya, two of the core participants described their overall approach as 'participatory' and cited this as an enabler of pupil learning. Jackline was one of them. Of the seven observations carried out there, however, only Jackline's Standard 3 lesson demonstrated any variation from the teacher-directed, lockstep norm.

Jackline and Michael at Mpya stood out from the other teacher participants in their accounts of their own practices as 'participatory' or 'activity-based'. Both were able to justify their approaches but struggled to describe the details of their practices in ways that allowed the researcher to imagine actual tasks and interaction in the classroom. In the formal lesson observation, Michael used a similar range of structured logical sequencing techniques to Alice and there was no pair or group interaction. In Jackline's Standard 3 English lesson she stepped away from the staged lessons seen in Chapter 8 and gave pupils the chance to work individually and interact with flashcard resources more independently, but the minimal guidance and unstructured nature of the task meant that the overall impression, though lively, was quite chaotic. Similarly, as we saw in her Standard 5 science, there were elements which could be perceived as 'participatory' in that she set a collaborative homework task to make a working electrical circuit. However, the atmosphere of threats and complaints such as, "you pupils are lazy", do not support such an approach. Here we see the importance of looking at pedagogy as both practice and ideas (Alexander, 2008) and that "the crucial difference in the way teachers practice is not **what** is done, but **how** it is done (original emphasis)" (Westbrook et al., 2013, p. 38).

In terms of 'participatory methods', there was no mention by pupil participants of the pair or group activities commonly associated with this approach, (and reported in Sakata et al.'s study (2021)) and so there seems to be alignment between pupils' and most of the teachers' accounts of perceived effective and

typical pedagogical practices. When ideas such as 'participation' were mentioned, pupils focused on the relationship or interaction between the teacher and the pupils. For example, pupils liked it when the teacher, "interacts with the pupils" (Salome) or "collaborates with me and my fellow pupils about the lessons" (Emmanuel), but these interactions should be focused on "getting new knowledge" (Benson).

Overall, then, teaching is regarded as good if it enables pupils to "gain knowledge", understand and learn. Pupils at both schools expressed this, variously saying they liked it when the teacher: "teaches us good knowledge" (Koku/Mpya/P/AC) and "teaches so I can understand" (Vanesa/Zamani/P/AC). This predominant conceptualisation of learning as 'getting' and 'gaining' knowledge indicates pupils' views of learning and teaching as transmission (Alexander, 2001). Teachers are seen as having knowledge and their job is to give that knowledge to the pupils: "teachers are the ones who have a lot of knowledge", "it is his knowledge that he acquired and gave to us", "every day pupils need to get some new knowledge" (Zamani/P/AC).

In terms of pedagogical practices that support learning, pupils' and teachers' perceptions are largely aligned. Pupils expect to gain knowledge from teachers in order to prepare them for examinations, and recognise explanation, examples, exercises and feedback as appropriate practices. Together, in classroom practices and processes, teachers and pupils negotiate curricular, assessment and other trajectories to maximise this knowledge transmission. This is in line with the "efficient and expeditious" transfer of knowledge which is generally regarded as ensuring success (Vavrus, 2021, p. 264). Here, teachers see that their use of these practices is effective as the schools, especially Zamani, are consistently high-performing in PSLE results and parents continue to choose it regardless of over-crowding, and therefore their approach is further validated. Pupils cooperate as they are also invested in these outcomes, and encourage teachers to remain in information-giving roles. It is clear to all of them 'what works'.

Teacher – pupil relationships and corporal punishment

Another priority area identified by pupils in relation to support for their learning was teacher behaviour and personality. Although this theme was generated by data from both schools, there was a distinction in the focus at each school. The emphasis at Mpya was more on the teachers' love of their job and of their pupils. For example, the participants mentioned liking when the teacher, "loves us and we love him" (Edmund), "gives us comfort … and uses humour" (Joviness), and "is happy and laughs" (Herriet). In contrast, at Zamani, although there was some overlap, the pupils seemed to value seriousness and discipline over love. Positive teacher traits mentioned were being, "smart" (Kaspet), "polite" (Ruta), and "serious in teaching lessons about exams" (Emmanuel). Moreover, participants emphasised the importance of learning discipline, values and good behaviour from their teachers. For example, pupils liked it when teachers "teach discipline for in school and for everywhere I go" (Rose) and "teaches me good values and habits" (Benson). This theme was summed up in the pupils' own group analysis where they concluded:

> 8/8 [pupils] say they like when the teacher teaches them good behaviour because we will be children with good discipline … and we will become respectful children, who respect their elders (Zamani/P/AC).

They also mentioned that this could be learned by imitation, by learning from the teachers' habits and actions. Overall, this seems to demonstrate that Zamani's legacy of discipline, which we looked at in Chapter 9, penetrates at classroom and individual level where pupils value and request it.

Although the pupils seek discipline and role models of good behaviour, one area where their perceptions of what helps and hinders their learning is at odds with those of teachers is corporal punishment. The pupils in both activity clubs largely accepted that corporal punishment was a necessary part of school life and most admitted that they could not imagine a school without it. However, they unanimously and strongly disliked it, and in particular, disliked when it was done unfairly, in ways that unnecessarily interrupted lesson time, affected their ability to learn, or when it was accompanied by verbal abuse. We saw in both Emmanuel and Happy's stories-so-far that they disliked being beaten. It was not mentioned in Julius's but I suspect this is mainly because he did not attend the

activity club session when this was discussed. All of his Mpya peers ranked corporal punishment high on their lists of what they do not like the teacher to do. The pupils use the phrase *'kuchapa kiboko'* (to cane or whip) most often, as well as the passive *'kupigwa'* (to be beaten or hit).

In Mpya activity club, in the pupils' own analysis of unpopular teacher practices within the group, they concluded that the main thing they disliked was being beaten and in particular *kutupiga bila kosa* (to beat you without fault/ mistake). The reason they gave for not liking this was, "when we are beaten it causes different actions in us, like not attending school, like failing some subjects" (Mpya/P/AC). Likewise, at Zamani activity club, when seven out of eight pupils raised the point that they do not like to be caned, their reasons were: "it makes the pupil suffer because if they are beaten on their hands, they can't write class notes and it makes the pupil hate the teacher". They also said that they were not surprised by this result as "every pupil is scared of the stick" (Zamani/P/AC). This finding is consistent with Sakata et al. (2021). In both schools, pupils see the direct relationship between beating and their learning e.g. failing subjects or not being able to take notes. Views on alternative punishments varied with some pupils saying they would prefer, for example, *"shika masikio"* (bending over and holding ears), "cleaning the classroom", "cleaning toilets alone for a week", "cutting grass", "being suspended" or "calling parents", and others choosing the cane.

The two main reasons that pupils gave for teachers having to use the stick were behaviour, e.g. "because the pupil is disrespectful", and because, "pupils make mistakes". There is alignment here with the pupils' priorities for learning; as we saw earlier, they look to teachers as models of good behaviour and values, and as sources of 'correct' factual knowledge. The former reason can be seen partly as a classroom management issue, an extension or the dark side of the 'discipline' pupils value, with teachers using the stick as a tool to control the large number of pupils within the crowded classroom and limited period, as the DEO suggests below:

> When you have 180 students in one classroom, making them silent, keeping them focused on you … but the limits of teaching a period is still 40 minutes … so that is also another challenge. So teachers, some

of them actually walk with a stick in the classroom. I think not
because they want to but because of the situation (Baraka/DEO/I).

This is an example of 'cooperative conflict' (Tao, 2013) where the stick is used
to restore cooperation and enable the lesson objectives to be met in the
restricted time. The second suggested reason, that teachers respond to a pupil's
mistake, error or misunderstanding with the use of the cane, has deeper
implications for learning. Zamani activity club participants taught me the word
adhabu (punishment) and defined it as "something that happens if you make a
mistake. It helps you not to make the same mistake again" (Zamani/P/AC). This
theme of 'consequences for making mistakes' has been seen previously, for
example Martha regarded home as a safe place for learning, saying "...at school
if you make a mistake, they beat you". Conversely, Benson saw school as a safe
place to make mistakes and associated tuition with the place where he was
beaten if he, "fail[ed] to answer the question", and, in a further twist,
Emmanuel liked his tuition teacher because he did not punish wrong answers and
created a space where he could ask questions and answer incorrectly without
being laughed at, unlike at school. Considering what we know about the place of
mistakes in learning processes, and how important it is for teachers to
continuously gather and act upon information about where their pupils are in
their learning (e.g. Black and Wiliam, 2010), this use of punishment shows this
aspect of discipline as a trajectory pulling strongly against production of a space
for meaningful learning.

As well as the threat of physical punishment, pupils also emphasised that they
did not like being insulted, laughed at and shouted at. The girls at Mpya
expressed that they disliked the teacher *kufokea* (shouting, ranting or literally
'overflowing'), whereas the boys gave examples of the kinds of insults they did
not like, e.g. being called goats or lizards. Similarly, at Zamani, the pupils cited
blaming, complaining, ranting, using bad language and insulting as teacher
behaviours that hindered their learning. Several pupils also highlighted the
disturbing use of the combination of physical and verbal abuse, e.g. "when he
beats the pupil, he laughs", or "when he punishes someone while insulting
them". In activity club, I observed that some of the girls at Mpya had laughed
and mocked one of the boy's drawings during an activity club game; it seems
that doing something differently or making a 'mistake' can be a risky endeavour.

The focus on right/wrong answers associated with factual knowledge (reinforced by testing and inspections), combined with punishment, insults and humiliation for wrong answers or mistakes, and a perceived lack of fairness in administration of punishment leaves little room for risk-taking, curiosity and creativity, all characteristics seen in Emmanuel, Happy and Julius's out of school stories.

There were also examples of teachers using pupils' incorrect answers as a constructive tool for learning. We saw instances in Alice and Neema's lessons. In a further example, Erick asks for examples of government ministries in his Standard 7 Civics class and one pupil suggests, "the ministry of food". Erick laughs, not unkindly, and corrects it to "the ministry of agriculture". Likewise, linking to her pupils' home experience in her Standard 3 science and technology lesson, Neema asks, "Who knows how to boil water? When you boil water, what do you see?" "Smoke" is suggested. Neema corrects the pupil: "it looks similar but not smoke, steam". These examples show aspects of dialogic teaching (Alexander, 2020) and suggest that these experienced teachers have created a classroom environment where pupils feel it is safe to volunteer their ideas. However, from the pupils' comments on corporal punishment it is clear that this is not the way that all 'wrong answers' are treated.

In contrast with the willingness to raise and discuss corporal punishment among the pupil participants, only one teacher brought this issue up during a formal data generation activity. Alice highlighted the impact of learning about child psychology during her degree and that "if the child is afraid of you, he can't understand what you are telling him" (Alice/Zamani/T/I). She described her alternative discipline and classroom management strategies, including, "you need to make them calm". This description matches Alice's behaviour in the observed lesson where she maintained control and seemed to hold pupil attention without raising her voice, threats or punishment.

None of the other teachers discussed the use of corporal punishment during interviews, although my fieldnotes contain many examples of its occurrence in ongoing observations and informal discussions. I was, however, unsure how to respond to these observations and discussions. Similar to Tao's experience (2013), I was reluctant to risk the relationship with participants by asking questions that caused discomfort or appeared that I was being judgemental, but

I also found these occurrences very upsetting. As a result, I know little about how corporal punishment is perceived by the adult participants. There was no doubt, however, that my presence, my own story-so-far, altered space to some degree, affecting how teachers behaved in the classroom. In one instance my presence precipitated a caning and in another it prevented the use of the stick.

The exception to this omission of the topic in interviews with adults was in my frank discussions with the DEO. He was unaware that the donor-supported ESDP includes plans for the abolition of corporal punishment as part of the drive for quality and improving the learning environment. The ESDP document states:

> *Strategy 5*
> Abolishment of corporal punishment
> *Result*
> Teachers are using alternative ways of disciplining children (MoEST, 2018, p. 91)

In response, he replied that, "changing the norms takes time" and reminded me that

> Many people including our current President says no, the children need at least one or two sticks, to make sure that they are disciplined. So whose idea is followed is still questionable (Baraka/DEO/I).

Again, we see the power relations playing out between trajectories in policy and discourses, but also in the classroom. The (now former) President's public stance, in a hierarchical system, carries more power than a donor-influenced document, and teachers, based on their own experiences and stories-so-far, use their status and power in the classroom to make their own decisions about how to negotiate the challenging circumstances they face. Unpicking these trajectories further reveals the murky trajectories of colonial and missionary uses of corporal punishment, originating in the same nations of current donors, highlighting again the challenge of intervening in a complex constellation of trajectories.

Missing pupil togetherness

The glaring omission in terms of togetherness in the classroom is in any kind of classroom peer support and communication. Outside school, adults and children have internalised, "if you don't have someone to help you, you will fail" (Emmanuel/Zamani/P/AC) and the importance of "participation and cooperation" (Neema/Zamani/T/I), however, this does not apply in the classroom where interaction between pupils is minimal. Teachers have collegiality; parents and teachers are expected to cooperate; family members have shared responsibilities and teach and support each other; children learn with and from their siblings and friends at home, but in the classroom, despite sitting literally cheek by jowl, there is practically no communication or interaction between individual pupils. The distinct combination of trajectories in the classroom, including examinations, inspections, adult-child hierarchies, FBE and class-size, means that pupil-pupil peer togetherness is left, if not at the school gate, then certainly at the classroom door. This is not unique to Tanzania. As Resnick et al. asked,

> "If adults learned through discussing problems and debating solutions with one another, then why were children expected to learn by listening and repeating what their teachers said?" (Resnick et al., 2020 in Alexander, 2020, p. 16)

Of course, we have also seen the physical constraints such as large class size making peer interaction potentially noisy. My own attempts to instruct pupils on specific tasks in English lessons, with their peers at their desks, to *"talk together", "test each other"* and *"help each other"* were largely met with silence and, what I perceived as confusion, though in the class I taught most often, timid communication was beginning to occur between pupils. In a subject like English, which has an intrinsic communicative purpose (Sowton, 2021), and where oral communication is now in the curriculum, if pupils only talk to the teacher, and often in choral drills rather than freer information sharing, then the limitations are stark, and frustrating, especially considering the EMI leap in secondary.

'Talking together' in other classes could be reason for punishment so pupils' reticence is, nevertheless, understandable. Added to this, there is little

perceived advantage of this kind of classroom activity as it is not yet tested in the PSLE, and inspectors still expect so see written evidence of lessons taught. Therefore, teachers and pupils see no need to prioritise it in their co-constructed pedagogy. It seems that links have not been made between peer supported communicative activities and strengthening learning processes, such as integrating new information into long-term memory (Kirschner and Hendrick, 2020). Activities such as 'think-pair-share', re-telling or verbalising knowledge in pairs and groups are all effective ways of connecting new material to prior learning and supporting future recall and application (Alexander, 2020, Akyeampong et al., 2020, Rosenshine, 2012).

Discussion and conclusion

This chapter has presented the classroom as a crowded space, where pupils and teachers with their stories-so-far, jostle and joust with multiple trajectories, especially curriculum, assessment and inspections. Trajectories which ideally should be intertwined and working together, such as curriculum, textbooks and assessment, clash and pull teachers in opposing directions. Time-lags between policy at 'the centre', and local implementation and practice exacerbate these misalignments, for example the roll out of new SQA processes and delayed textbooks or teacher support for curriculum reform.

In terms of togetherness, and answering the question, "are we together?", this chapter has presented significant evidence that the class, as a group, despite the fast and slow learners and the haves and have-nots, and the teacher, are largely supportive of and complicit in the whole-class collective teaching and learning endeavour. There is strong alignment and togetherness in pupils' and teachers' shared values and expectations of pedagogy and of what makes 'good teaching', largely directed towards assessment and examination performance and framed by discipline and respect. Corporal punishment stands out as the tricky and upsetting exception, where pupils strongly dislike it in practice but cannot imagine school without it.

According to Tabulawa, "co-construction assumes 'hierarchically flattened' relations between the teacher and students" (2013, p. 73) and whilst pupils and teachers in this study are invested in the same pedagogical practices working

towards specific academic outcomes, the common and unwanted use of corporal punishment, placing children in a fearful and subservient role, and the lack of peer interaction independent of the teacher, suggests that a full 'flattening' has not occurred. Even if the pupils are able to influence the teacher, a hierarchy is still in place and pupils are able to exercise little power in these instances. This is not to say that there are not strong elements of co-construction. Power, after all is not a property or possession and the classroom is "a site for struggles and contradictions" (Tabulawa, 2013, p. 74).

Chapter 11. Conclusion

This thesis has used the concept of relational space to investigate perceptions and experiences of school, home and neighbourhood learning spaces in and around two urban primary schools in Bukoba, Tanzania. Using a comparative case study design and multiple methods with children and adults allowed me to generate data and gain insight across spaces and from a range of perspectives. According to these perspectives, and supported by the wider literature, trajectories were identified and the interactions between them were explored. Places such as the school, classroom and home are created out of these specific bundles of trajectories and their negotiation; each place is distinct in its *throwntogetherness* (see Figure 84 for a reminder of the spatial model presented in Chapter 4). Comparisons were made in multiple directions: between home and school, Mpya and Zamani, teachers' and pupils' perceptions and experiences. The bundling of trajectories, and the ways they are negotiated were seen to produce distinct social and pedagogical effects which impact learning.
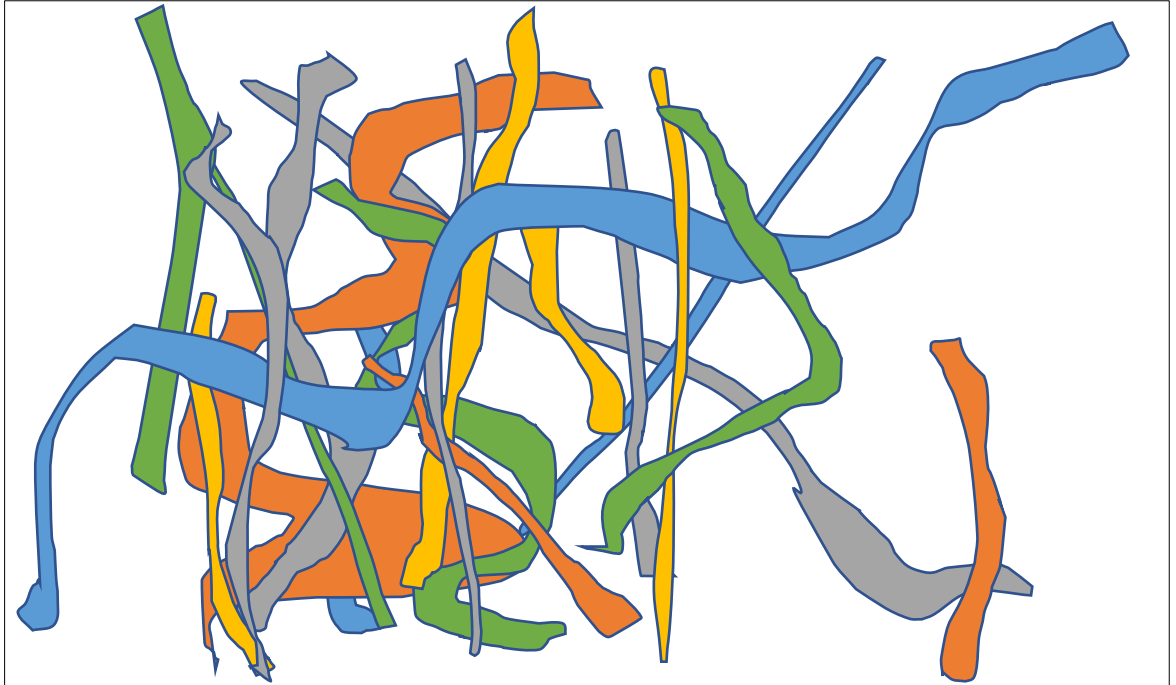
Figure 84 – Space as *throwntogetherness*

Summary of findings

Emmanuel, Happy and Julius's stories-so-far strove to challenge the default portrayal of Tanzanian primary children as a passive mass and to present their lives holistically, showing them as committed, responsible, curious, caring and ambitious. We saw them traversing, negotiating and contributing to home and school, and rural and urban spaces. However, their stories are interrupted in the classroom as they and their teachers negotiate competing trajectories which restrict opportunities for learning.

Trajectories of togetherness were explored in all three findings chapters and were identified as powerful cultural and social forces co-producing home, neighbourhood and school spaces. Ideas of working together and helping each other pervaded accounts across adults and children, female and male. Alexander's assertion that "a culture does not stop at the school gate" (2000, p. 29-30) holds, but culture also does not enter fixed and unchanged. Many trajectories of togetherness helped create positive learning spaces for children and teachers. However, collisions with other powerful trajectories, such as high-stakes examinations and cost-sharing, can cause bending and warping, producing segregated spaces and exacerbating disparities.

In addition, boundaries between school and home are porous in both directions. Educational trajectories are stretching out beyond the school gate and beginning to invade the home and neighbourhood space in the form of private tuition and dedicated self-study due to the pressure of academic performance.

Togetherness looks very different in the crowded classroom where it is interwoven with trajectories of curriculum, examinations, inspections and teachers' own epistemologies and stories-so-far, suggesting that the classroom door is less porous than the school gate. Teachers and pupils share ideas of 'good teaching' and largely work collectively towards narrow academic goals. However, there is no room for other forms of cooperation, such as peer support or pupils working together and helping each other in units smaller than the classroom 'collective'. Further, the common and unwanted use of corporal punishment, which places children in a fearful and subservient role, challenges both the idea of togetherness and that of co-constructed pedagogy.

The different bundles of often colliding and clashing trajectories in the classroom which were presented here, highlight that any new education intervention or reform is entering a complex arena: a constellation of policy, cultural, material and personal trajectories with different rhythms and histories. Well-intentioned interventions can result in unintended effects if relations and interactions of trajectories are not anticipated.

Research questions

This study posed two broad questions (1 and 2 below) and qualified them with further sub-questions (a and b below), integrating the spatial lens into the core of the study. In this section, I will draw on findings and discussion across all three empirical chapters, and the wider literature, to highlight the answers to these questions.

1. How do primary teachers and pupils perceive and experience school, home and neighbourhood learning spaces?

a. How are these spaces produced?

School, home and neighbourhood spaces are produced by bundles of interacting social, cultural and material trajectories, negotiated by pupils and teachers on their own stories-so-far. Rather than enumerating all trajectories, I identified and described trajectories in the literature and according to participants' perceptions and experiences, or 'angle of vision' (Massey, 2005). Throughout this study we have returned to Alexander's assertion that "a culture does not stop at the school gate" (2000, p. 29-30). By tracing trajectories such as 'togetherness', including 'community and social cohesion', 'shared responsibility', 'national and ethnic group identity', 'collegiality', as well as 'discipline and respect' and 'the value of education' across the home and the school, we have seen how these cultural phenomena produce space, and how porous the boundary between home and school is. However, we have also seen that, although they do not stop at the school gate, the ways in which these cultural trajectories interact, produce very distinct spaces. As Massey said: "the singularity of any individual place is formed in part out of the specificity of the interactions which occur at that location" (1994, p.168) and in this study we have seen that the specificity of the interacting trajectories at home stand in contrast to school. 'Togetherness' and

'discipline and respect' still exist in the classroom but the crowding and bundling together with examinations, inspections and other less flexible trajectories means that they change. In addition, the sheer number of actors and the power dynamics between those actors limit the options for negotiating trajectories to open up the classroom space and learning opportunities. My research suggests that the usual formulation of 'aligning system actors' (The World Bank, 2018) does not go far enough to understand the complex constellation of interactions producing classrooms as spaces for learning.

Just as trajectories traditionally associated with wider society and culture 'outside' the classroom co-produce the classroom space, so too are educational trajectories beginning to stretch out beyond the school gate to produce and affect change in home and neighbourhood spaces. The spatial lens in this study helps us to understand the different ways in which "schools and classrooms are … microcultures in their own right"(Alexander, 2000, p. 164). In this sense, school microcultures can shape practices outside the school gate. Especially for the pupils at Zamani, there is a "creeping scholarisation" (Alexander, 2010, p. 13) with school, and in particular examination trajectories, invading home and community spaces in the form of the 'shadow education' (Bray, 2021) of private tuition geared towards academic performance, homework (i.e. more schoolwork) and dedicated self-study. This shadow education trajectory re-enters the classroom adding to the in-class disparity between learners and further challenging the teacher to negotiate curriculum delivery and examination preparation whilst keeping the whole, diverse class together.

Discourses of togetherness can be traced back to *Ujamaa* and earlier, and clearly permeate home, community and school space but we also see changes in practices of togetherness along the urban-rural continuum, and in response to central reforms and global initiatives. If we see "culture as an ongoing, contested production" (Bartlett and Vavrus, 2017c, p. 47), then we can expect cultural trajectories such as 'shared responsibility' that were powerful entities in children's greenbelt homes and *shambas*, to change over time as Bukoba continues to urbanise. Either new forms of urban togetherness will emerge, or it will be muted by competing trajectories, with social effects on children's sense of responsibility and social interactions as Tudge saw in urban Kenya (2008). Similarly, in schools, which were previously regarded as shared community

spaces, trajectories of togetherness collide with FBE and UPE; cost-sharing and competitiveness; to produce spaces with exclusionary characteristics, where power shifts and tugs to create spaces that encourage practices contrary to the togetherness discourses, for example prioritising individual attainment over communal well-being in the case of testing versus school meals for all. My research adds to what is known about the relationship between culture and pedagogy and it raises questions about how cultural discourses and practices change and interact over time and across spaces.

b. What are the implications and opportunities for learning in these spaces?

We have seen the bundling of specific trajectories produces distinct places and negotiating those spaces produces new social effects (Massey, 1994). In this study, I am interested in the effects on learning, the opportunities that are opened up or closed down for different kinds of learning in different spaces.

School and classroom

In the wider school space, the attitudes of "living together, and working together, for the common good" (Nyerere, 1967 in Lema et al., 2004, p. 72) are prevalent across adults and children. Children learn from a young age, at home and then reinforced at school, that they have a shared responsibility to look after their school, mainly through *usafi*, and to create a safe, attractive, conducive environment to work in, and feel proud of. This goes hand in hand with valuing and learning discipline and respect. Children's commitment to this kind of work, and pride in their school, demonstrates aspects of *learning to live together* and *learning to be* (Delors et al., 1996) or *socialisation* and *subjectification* (Biesta, 2010). Children are also able to link this work to knowledge about health, hygiene and the environment, showing the interdependence of different domains of learning (Biesta, 2010).

However, similar tensions exist now as 50 or 60 years ago. Sitting at odds with this togetherness and responsibility at an early age, now as it did with ESR in the 1970s, is corporal punishment, encouraging fear and shame (Kaltenbach et al., 2018, Mbilinyi, 2003). As much as the outside researcher may be struck by the school and national unity and pride and shared responsibility, we know that

children learn from *all* experiences, not just those that are part of formal instruction. Therefore, there are strong messages being learned from this hidden curriculum (Alexander, 2010, Vavrus, 2021). Pupils integrate this learning into their stories-so-far and this in turn affects how they negotiate different learning spaces, for example, how likely they are to take risks by asking questions or exploring alternatives answers. We are reminded again that for children, "the kinds of adults they are likely to become are shaped by the kinds of childhoods they are experiencing today" (Uprichard, 2008, p. 311). Educational discourses may be aspiring towards critical thinking, inquiring minds, self-confidence, decision making, and respect for human values (MoEST, 2019) but if the learning spaces created force children to negotiate harmfully conflicting trajectories, the intended outcomes are unlikely to be achieved.

Inside the classroom itself, togetherness bends further and is somewhat overwhelmed by the multiple clashing trajectories that create this crowded space. Several powerful trajectories force teachers to negotiate the classroom using a limited range of pedagogical tools, which in turn restrict learning opportunities for children. Negative backwash from the PSLE encourages learning of short factual knowledge chunks that can be repeated to aid recall and assessed in gap-fills and other short answer oral and written formats. This is reinforced by the inspection system which requires corrected exercises as evidence of lessons taught, and because of the large number of pupils and the burden of marking, the exercises need to be quick and easy to correct. All of this is framed by the aim of pupils 'getting knowledge', knowledge that can be assessed as right or wrong with little room for exploration. Adding fear of punishment into the negotiation further closes down opportunities for pupil inquiry or risk-taking. The questions that Happy asks her pharmacist neighbour or the experiments that Julius carries out at home and describes at length stand in stark contrast to the interactions and activities in this restrictive classroom space.

Nevertheless, the steps many teachers take to present, clarify and assess curriculum knowledge are clear and logical and pupils value learning when explanations, examples, exercises, tests and corrections help them 'get' that next bit of curriculum knowledge that they need. In this study, teachers were generally well-prepared for lessons and conscientious in marking, taking their

responsibilities seriously despite the challenging circumstances. Everyone is invested in this way of learning as it meets the requirements to continue on the education trajectory of examinations, secondary schooling and beyond. The discourse of 'competences' or skills exists on paper but is not present in children's accounts of their classroom learning, suggesting that *learning to know* is valued over *learning to do* (Delors et al., 1996), though learning to *do* examinations is a highly prized skill and one that high-performing schools like Zamani PS are adept at fostering. This suggests that, without explicit support, children may struggle to apply their learning in other non-school contexts (Nag et al., 2014, Lave and Wenger, 1991, Brown et al., 1989).

Learning in the classroom is either a whole class or individual endeavour. Pupils may learn from their classmates' examples and answers but overall, 'new knowledge' comes from the teacher and peer communication and cooperation is minimal or hidden. The specific bundling of trajectories leaves no space for peer-supported learning and as a result, togetherness is only in the form of whole-class, lockstep cooperation to move through the lesson. At the other extreme is the individual competitiveness driven largely by examinations – as Happy was reported to say, "she's the one who likes to study because the benefits for studying are for herself." Once again, we see the uneasy tensions in action (Alexander, 2001). Narratives of collective *self-reliance* may characterise the school grounds but possibly a more individualistic, attainment driven *self-sufficiency* is found in the classroom (Baganda, 2016).

Home and neighbourhood

There is a clear continuity of shared responsibility at home and greenbelt children learn a range of domestic and farming skills at an early age so that they can contribute to their families and communities. As well as the practical skills, such as washing clothes, cooking, cleaning and cultivation, they also learn and internalise the principles of participation and cooperation underpinning them. Detailed observation of learning processes at home were beyond the scope of this study but children's accounts involved experiential learning, based on observing and imitating more-skilled family members. They were gradually involved in more complex tasks, building confidence and mastery with sibling, parent and grandparent support, with similarities to the detailed accounts of

gaining environmental knowledge in Katz's Sudan study (2004). As with *usafi* at school, there are strong elements of discipline and cultural compulsion but the acquisition of these skills is valued *now*, so that the children can contribute to their families, and for their future use. Of course, schools were designed to develop abstract and complex knowledge and skills that cannot be learned informally across generations like these practical skills (Dewey, 1916), but, again, the contrast in the kinds of learning opportunities that exist in home and school spaces suggest that formal instruction may have become detached from its social function and is too "abstract and bookish" (Dewey, 1916, loc. 150). Further, the home space, for the pupils in this study, allowed some room for trial and error and for cooperation and one-to-one support which would be needed for skills development in the classroom too, indicating that numerous trajectories would need to interact differently to create a learning space that would facilitate this. It remains to be seen how this experiential out-of-school learning will be affected by urbanisation.

The other main kinds of learning that occurred outside school were related to school learning. As well as homework set by teachers, children described their own self-study using past papers and exercises with some sibling and parent support, suggesting a repetition and extension of classroom learning, again geared towards examination preparation. Further, the Zamani children also attended private tuition where the content anticipated the upcoming school learning but narrowly focused on the 'most important' subjects and again emphasised 'gaining knowledge'.

There were, however, several examples of children's self-directed inquiry, where they focused on what they wanted to learn and had some agency over it. These instances sometimes overlapped with schooling, e.g. Happy's questions to the pharmacist and Julius's experiments and investigations, but they demonstrate a form of knowledge production distinct from the classroom. Similarly, developing football skills, learning to ride a bike and practising drawing all show that home and neighbourhood spaces open up opportunities for different kinds of learning, though interestingly, it was the boys who described spending time on these non-work, non-school related activities suggesting these spaces are not equally open for boys and girls.

Club and research spaces

Finally, this study created some new spaces, or altered existing ones, by setting up activity clubs in schools and asking children to change the ways they negotiated familiar places, e.g. by taking pictures at home, or walking home with Hereneus and a *Mzungu* (white foreigner). The activity clubs, in the same physical classroom space, highlighted the characteristics of relational space. By introducing some new trajectories, including me and my story-so-far, and banishing some existing ones such as assessments, the clubs opened up opportunities for different ways to participate and learn for these small groups of children. Adult-child hierarchies and trajectories of discipline and respect would take considerable time to re-mould or change but over the fieldwork period, the children shaped the club with their stories-so-far and together we created spaces where they could question, analyse and share opinions, start to develop new independent learning skills, and where they demonstrated leadership, cooperation and caring. This study used multiple creative methods which allowed children to share their ideas and experiences to co-produce knowledge. Their contribution demonstrates the value of including them in future research and also creates a possible pathway for more of this kind of work.

2. What are the implications of this for pedagogy?

With trajectories stretching out across homes, schools, neighbourhoods, national government and global organisations, and composed of cultural, social, material, educational, political and economic phenomena, 'the implications for pedagogy' may seem like a narrow focus to end on. However, "what children learn is directly related to what and how teachers teach" (Livingston et al., 2017, p. 11), pedagogy is considered the missing ingredient of quality education (Alexander, 2008) and critically, pedagogical practices cannot be separated from the social, cultural and political ideas that enable, legitimate and locate them (Alexander, 2008).

This study has investigated the production of different learning spaces and subsequent effects on children's learning. Schools and classrooms can be seen as planned learning spaces; across Tanzania over 16,000 primary schools and

145,000 classrooms (PO-RALG, 2020) have been constructed by government and communities specifically to provide spaces for children to learn. Curricula and other education policy documents lay out the learning that is expected to occur in these spaces and the wider purpose of primary education. Pedagogy and pedagogical practices are expected to act as mechanisms to "evoke changes in the learner" (Westbrook et al., 2013, p. 7). However, each new intervention or reform that enters the classroom space interacts with multiple others and forces the teachers and pupils to negotiate them in particular ways. Teachers make pedagogical choices based on the conditions they face; "the throwntogetherness of place demands negotiation" (Massey, 2005, p. 141).

The ways that the classrooms in Zamani and Mpya are produced, the constellation of clashing trajectories, forces a narrow range of pedagogical practices that, in turn, produces a narrow range of examination-focused learning outcomes (and a range of, not necessarily intended, social learning from the hidden curriculum (Vavrus, 2021)). New actors entering the classroom, for example, textbooks that are highly sought by teachers, introduce new interactions between the bundles of trajectories and without anticipating those interactions, the intended use and learning goals may not be achieved. The new competency-based curriculum is not currently, or only nominally, being implemented in the classroom, and so textbooks that align with this curriculum may not be integrated into teachers' pedagogical practices as intended. Until classroom spaces allow more flexible negotiation of examination, curriculum and inspection trajectories, teachers will continue to be pulled towards the most powerful trajectories, making the 'trade-off' in favour of *qualification* (Biesta, 2010, Delors et al., 1996).

There are small indications that better alignments between clashing trajectories could be coming, freeing teachers up to explore different pedagogical negotiations. If the SQA shifts from inspection of written exercises to a more holistic and supportive approach, then teachers may be encouraged to try a larger variety of activities, including oral or practical tasks that cannot be evidenced in exercise books but could lead to "instrumental and intrinsic benefits for learners" (Barrett, 2011, p. 130). Likewise, considering what a powerful lever the PSLE is on classroom practices, the inclusion of listening comprehension in the national English paper, could support a shift to more

communicative practices. Both of these could potentially create spaces where curriculum competences as well as discrete chunks of knowledge are gained through more diverse teaching and learning activities. However, both of these rely heavily on clear communication with and support for teachers, considering the epistemological shifts also involved (Altinyelken, 2010a). The full implementation of fee-free, compulsory education until Form 4 will also raise questions about the existence of this high-stakes examination – how can secondary school be both compulsory *and* only accessible to those who pass the PSLE?

The gradual remoulding of the examination and inspection trajectories could cause them to interact in more complementary ways, allowing some pedagogical flexibility, but this would be aided further if the government succeeds in reducing class size, as planned, to a standard 45:1 PTR. Currently, teachers in these high-performing schools exert a huge amount of energy on planning and delivering, with minimal resources and no central professional support, lessons that will help their pupils and schools succeed. Rather than being guided by the official goals of education, and their own desired outcomes of pupils contributing to their communities, their efforts are directed by the unofficial but roundly validated metric of success in examination attainment. They demonstrate "resilience and commitment" (Fentiman et al., 2013) but this energy could be redirected towards more meaningful goals.

There are several other areas of promise and encouragement, components of the foundations of a pedagogical nexus (Hufton and Elliott, 2000) that could open up opportunities for learning. First, children demonstrate the will and commitment to set goals and *soma kwa bidii* (study with effort) (Adamson, 2020b). However, they would benefit from more support in how to do this more productively, and beyond cramming for examinations. In terms of making links between discrete concepts presented in the classroom and real world phenomena, "a lot depends on the child's own profile of strengths" (Nag et al., 2014, p.14), and it seems that the same is true of pupils *learning to learn* or developing essential meta-cognitive skills (Delors et al., 1996, Kirschner and Stoyanov, 2020). Rather than leaving this kind of learning to individual chance, elements of a 'pedagogy of autonomy' (Kuchah and Smith, 2011) would tap into this self-reliance, or self-

sufficiency, that pupils already demonstrate, as well as helping teachers working in challenging, resource constrained circumstances.

Similarly, further developing Tanzanian teachers' "pedagogic palette" (Barrett, 2007, p. 288), to build in new trajectories of togetherness in pupil-pupil, peer supported learning would open up multiple opportunities for pupils to construct and consolidate new knowledge as well as develop competences. I am not prescribing a leap to LCE but rather an extension of the dialogic practices (Alexander, 2020) that teachers already use in whole class activities, of telling and re-telling, generating examples, testing and checking, but incorporating pupils' neighbours as a valuable resource to learn together and help each other. Updating pre-service and in-service curricula to draw on, where relevant, approaches using cognitive load theory and other insights from neuroscience would further strengthen teacher education (Kirschner and Hendrick, 2020, Rosenshine, 2012). These non-binary pedagogical approaches have already been seen in action in Ethiopia and Cameroon (see Akyeampong et al., 2020, and Kuchah and Smith, 2011, respectively). Of particular interest is the evidence from Ethiopia of successful pedagogical approaches resulting in pupils' shared responsibility for learning with their classmates, and self-management of learning which put in place skills for further formal schooling (Akyeampong et al., 2020).

In this study we have seen the clashing of aspirations for pedagogy and learning with high-stakes examinations, a pyramidal education system and corporal punishment but this is not new; similar collisions have been documented since the 1960s (Bartlett and Vavrus, 2017c, Mbilinyi, 2003). This can lead us to simply believe that teachers teach as they were taught and certainly by the time they leave secondary school, future teachers have observed thousands of hours of classroom practices through their own schooling (Stuart et al., 2009). These memories can be constructively used in teacher education, both to build on positive and negative experiences (Stuart et al., 2009). Full discussion of initial and ongoing teacher education and development is beyond the scope of this study but I suggest it is not only previous childhood experience of *classroom* learning that can support development of pedagogy, but also of wider out-of-school learning. Teachers' memories of the knowledge and skills they developed as children, of their curiosity and interests, could help them relate to and

encourage their own pupils' stories-so-far. This would help avoid 'impoverishing' the view of learning by only seeing it framed by the "apparatus of schooling" (Lave, 2012) but also perhaps make some space for these stories in the classroom.

In short, there are several core trajectories in place which could form the basis of a stronger more meaningful pedagogical nexus (Hufton and Elliott, 2000), potentially building new forms of teacher and pupil togetherness in the classroom, and opening up opportunities for new ways of learning, allowing pupils' stories-so-far, which are currently interrupted in the crowded, rigid classroom, to contribute to this learning space. However, there is little point in investing in schools and classrooms as planned 'learning spaces' and not anticipating the effects on learning that will be produced by the creation of these relational spaces.

What has this study achieved?

As well as answering the above research questions, this study also had three main objectives. This section will present the extent to which I have achieved those objectives and highlight the wider methodological, conceptual and theoretical contributions the study makes.

Visibility, representation and methodology

Firstly, the study aimed to increase the visibility of children's perceptions and experiences in education research and provide an alternative story to the depictions of Tanzanian children as passive bodies of pupils. As a priority from the beginning, multiple activities were planned with children, carried out over a 5-month period to build familiarity and trust, ensuring that diverse rich data were generated. The children's positive response to the research activities gave valuable additional insight into their approach to learning, and this multiple creative methods approach can also be seen as making a valuable contribution to the field where children's voices have historically been neglected (Westbrook et al., 2013, Schweisfurth, 2011, Alexander, 2008).

During the analysis, I increased the visibility of children further by dedicating a chapter to their stories-so-far as well as ensuring their contributions were prominent in the thematic analyses chapters. This thesis hopes to stand as a companion piece to the insightful, richly contextualised studies of teachers and teaching in Tanzania (e.g. Vavrus, 2021, Tao, 2013, Barrett, 2007) by including a focus on pupils and learning, and subsequently amplify the contribution of qualitative research for policy makers who are endeavouring to intervene in these complex spaces and processes. Studies such as this one make a valuable contribution by increasing the visibility of children in education debates, by ensuring they are seen as much more than learning outcome or GER data.

Since children have been so underrepresented as participants in educational research in sub-Saharan Africa, this study drew on approaches from other fields, such as human and children's geographies and so I hope that it not only enriches the current evidence base in CIE but also provides an exploratory model of how such research can be carried out

Conceptual and contextual contribution

The second objective was to investigate children's learning in a broader sense than that which is measured in school examinations and national or international assessments, highlighting the learning that happens in and across home and school sites. Though this study has not achieved the depth of insight that ethnographies such as Katz's rural Sudan study did (2004, 1986), in terms of both learning processes and knowledge and skills, it has opened up concepts of learning beyond "the apparatus of schooling" (Lave, 2012) in useful ways. The data generation for this study was completed just one week before Tanzania closed all its schools in response to COVID-19 and around the world debates started on how to support children to learn out of school. I am writing this conclusion in a much-changed world, but I hope that this study makes a small contribution to these debates, highlighting that children were already learning outside the classroom but that educators and planners need to be much more aware of the relations between learning spaces and the effects of these spaces on learning.

At a time when global discourses are dominated by the 'learning crisis' (Benavot and Smith, 2020, Sriprakash et al., 2020) and inclusive, quality education is measured by quantitative indicators of proficiency in literacy and numeracy (UIS, 2018), the objective was to draw attention to the wider *purpose* of primary education. This study has highlighted a tension between what the Tanzanian education system and curriculum state they are striving for, and what teachers and pupils are corralled into working towards when negotiating clashing trajectories in schools, i.e. examination performance. The latter purpose maps neatly on to Biesta's *qualification* domain (2010) and Delors et al.'s *learning to know* and *learning to do* (1996), and as Biesta says, too much emphasis on this, "comes at a very high and potentially too high price" (2015, p. 79). This thesis, by focussing on both the detail of classroom practices, and the bigger picture of educational purpose, allows us to see these opposing dual purposes, and shed light on what children are learning *for,* or what they *should* be learning for.

Theoretical contribution: an educationalist's journey into space

The study brings together geographical concepts of relational space and education concepts of learning and pedagogy in order to shed new light on children's and teachers' experiences in primary schools. In Chapter 2, we saw how significant attention is paid to the 'theory free', 'robust' evidence that is generated by RCTs (Tikly, 2015) which seek to break down complex issues into smaller, more manageable, researchable questions and experiments to explore 'what works'. This study, by applying a relational spatial lens to investigate the complex bundling of multiple trajectories and negotiations that produce the spaces where learning happens, stands as a counter balance to challenge a purely RCT-based approach and enhance the evidence base. By presenting classrooms, schools and space itself as a constellation of trajectories, I am highlighting the complex 'open system' that education is (Tikly, 2015), which in turn, emphasises the need for research that embraces these complexities.

Further, again considering the dominance of the 'learning crisis' in global political discourses, using this Massey-inspired lens helps to explore what happens when you open up the political to the spatial. It requires a politics of specificity and receptivity (Anderson, 2008, Massey, 2005), being open to the *throwntogetherness* of space, which in turn will involve debates, disagreements

and the forced negotiation of multiple intersecting trajectories (Massey, 2005). This is the antithesis of any 'one-size-fits-all' approach. Any intervention into school spaces: implementing a new curriculum, introducing cost-sharing, delaying the teaching of English for 2 years, using a new textbook or abolishing corporal punishment, require us to understand trajectories and anticipate current and new relations between them, and how they might be negotiated. This cannot be done without recognition of trajectories of colonialism and missionaries, and a myriad other power-geometries of intersecting trajectories, for as Massey points out: "there will be no simply portable rules" (2005, p. 162). From this perspective, just as the grand narrative of inevitable globalisation is intrinsically a-spatial in its disregard for countries' coeval trajectories, often ignoring the "grotesqueness of the maps of power" (Massey, 2005, p. 14), so too could the standardised, globally monitored SDGs be seen as a-spatial in their erasure of histories and differences to assert that there is only one educational story to tell.

In taking this stance I am not denying that there are millions in school but not learning (e.g. Pritchett, 2013), or that the SDGs and other instruments are not powerful tools for mobilising efforts to improve education provision and quality. However, I am flagging the limitations of global political approaches to solutions that ignore the "radical contemporaneity" of space (Massey, 2005, p. 7) and stand with other educationalists who seek to "to understand new geographies of power/knowledge in contemporary education" (Beech and Artopoulos, 2016, p. 257). Breaking up globally standardised policy approaches would most likely lead to 'endless debate and disagreement', but, as Massey reminds us: "endless debate and disagreement are precisely the stuff of politics and democracy" (Massey, 2005, p. 103).

I hope that this thesis opens up new ways of thinking about the relationships between global goals, national priorities and home and school, and that recognising the *throwntogetherness* allows us to better understand what can be intimidating 'explosions' of ideas associated with learning and pedagogy.

Implications for policy and the field of Comparative and International Education

Education policy priorities

Given the finding that new educational interventions, materials and practices enter a complex constellation of trajectories in the classroom, and that the production of the classroom learning space as a result of this bundling can lead to unintended and unwanted effects on learning opportunities, it is clear that successful policy interventions need to more fully consider the ways that teachers and pupils negotiate this 'throwntogetherness'. In Chapter 10, a teacher described the government as "changing like chameleons. And we are just going as they go; today we are like this … tomorrow…?". The implications are clear; two-way communication, effective information sharing and sustained, relevant support for teachers are required if new classroom trajectories are to help produce spaces for more meaningful learning.

At the time of writing, Tanzania's new five-year ESDP (2022-2027) is being prepared and again, it will articulate the package of interventions to be implemented to work towards inclusive, quality education. Part of this ESDP includes the new Education Programme for Results II (EPforR II) and this, as "the main vehicle of support for preprimary and primary education" (The World Bank, 2021a, p. 16) is being supported by a $500 million donor funded: Boost Primary Student Learning (The World Bank, 2021b). On paper, these programmes signpost very promising directions with priority areas overlapping many of the issues raised in this thesis: improving the school learning environment; improving teacher competencies and classroom teaching; strengthening decentralised capacity for education service delivery; and improving learning outcomes (The World Bank, 2021a). However, the Theory of Change presents an alarmingly simplistic linear model similar to those input -output models that were critiqued in Chapter 2 (see Alexander, 2015). Components such as provision of teaching and learning materials, ICT packages and school-based CPD (The World Bank, 2021a) need to be viewed as new trajectories, interacting with multiple others, subtly different in each school and district and therefore requiring local and responsive consultation, monitoring and adaptation.

In addition, policy-makers and LGAs would benefit from recognising the insight that can be gained by listening to children's perspectives. This can expose barriers and challenges specific to children, and that might be hidden from or ignored by adults (Kurian and Singal, 2022). Inclusion of children in this research has revealed the harmful collision of trajectories when corporal punishment interrupts and detracts from learning in the classroom, when otherwise there are high levels of motivation and education overall is highly valued. On a positive note, the insights gained into the participants' work ethic and commitment to school, home, tuition and self-study provides opportunities to develop new ways to support 'learning to learn', which has been shown as more important than ever in the light of COVID-19. Implications include not only that children have access to learning materials outside the classroom but also that development of meta-cognitive skills is explicitly targeted. Both these positive and negative examples show strengthened pathways to achieving national learning goals by listening to children.

Finally, further to the general point above regarding integrating new planned trajectories into the classroom space, this study has shown that the PSLE trajectory requires special consideration. The implications for policy are clear: education reforms that include curriculum changes without accompanying examination reforms constitute "a spectacular 'own goal'" (Schweisfurth, 2013, p.149). This thesis has highlighted the energy, focus and commitment on both teachers' and pupils' behalf that are directed towards the PSLE and the current missed opportunity of using this as a powerful lever for change.

Implications for CIE

This thesis opened with three illustrative stories, highlighting that 'stories of presidents, policies and pupils are seldom seen together' (p. 15). Rigorous academic study often demands a narrow, in-depth focus and increasingly, complex issues are broken down into manageable chunks for investigation (e.g. see The Royal Swedish Academy of Sciences, 2019 in Chapter 2). There is a place for this but this study shows that space matters in educational research, and new ways need to be developed in CIE to critically examine multiple complex phenomena, across multiple scales. It may seem contradictory that a study that calls for more recognition of children's voices, also calls for more critical

engagement with geopolitics but in fact the spatial approach taken here demands both. As I write this conclusion, I can easily access information about the aid contributions to Tanzanian education from the World Bank, the UK, Sweden and Korea (The World Bank, 2021a), however, it is much harder to find details of the outflows of funds e.g. in the form of debt repayments, from Tanzania to countries and institutions in the Global North. It is not as widely known as it should be that:

> …if we broaden our view and look at [aid] in context, we see that [the aid budget] is vastly outstripped by the financial resources that flow in the opposite direction. By comparison, the aid budget turns out to be a mere trickle (Hickel, 2017, p. 25).

I am not saying that education researchers need to become economists or that every classroom study of teaching practice must include a historical analysis of development, but a spatial approach like the one taken in this study, does demand recognition of the temporal in the spatial, of multiple stories-so-far, and interrogation of the grand, and often deficit, narratives that are propagated through aid mechanisms and powerful instruments such as the SDGs.

Limitations, reflections and future research directions

Although critical for this study, looking across spaces reduced the time and depth of investigation of learning in each place. Trying to arrange time to meet participants during the full school day was already challenging and there are ethical issues in keeping teachers and pupils out of class to participate in research activities. However, more detailed attention to how pupils responded to the lesson content, for example by examining exercise books, conducting post-observation interviews or group discussions, or working with curriculum topics in activity clubs, could have helped me understand more of what is actually going on in the pupils' heads, i.e. "the *nature* of the engagement (original emphasis)" (Alexander, 2015, p. 252) with the lesson content. In addition, discovering more about 'hidden togetherness' by gaining insight into pupil-pupil interaction when the teacher is not in the classroom, or in the occasional group tasks set as homework, would help to understand how more pupil cooperation could be fostered. Similarly, finding relatively unintrusive ways to capture pupil's home learning in practice could have added useful

insight, for example taking up Happy's offer to teach me about cultivating fruit trees, moving me towards the rich insights gleaned by Katz (2004). Future research, building on my work here and using approaches similar to Adamson's (2020b) in her study of secondary students negotiating language and learning, would contribute further to the evidence base.

An important note to add here concerns the pupil participant recruitment in this study. In Chapter 6, we saw that the liaison teachers selected children for activity clubs who they perceived as "able", "more likely to participate" and "active", or ones who were already known to the teachers for positive reasons. In this sense, the 21 children who attended activity clubs were regarded by the teachers as 'good children', the ones who do their work at home and at school, attend well and have parents or guardians who support them to undertake additional extra-curricular activities. Similarly, to select the eight core participants for photo-elicitation and go-alongs, once the initial shortlist based on gender and Standard had been considered, the final selection was informed by factors such as good club attendance and participation. In addition, the selection of the final three stories-so-far was based on 'rich illustrations of the themes' (Chapter 9) which partly reflected the amount and quality of data that had been generated with the participant, again, pointing to higher levels of active participation. As a result, the children represented in this thesis can be regarded as relatively high-performing, engaged and well-supported. This, of course, is no bad thing; just as we need more examples of good teaching practices in challenging circumstances to tackle deficit discourses (Pryor et al., 2012), so too do we need positive stories of children and their learning in the same circumstances. However, it does mean that this study has not increased the visibility or amplified the voices of children who may be struggling or disengaged, children who have little or no support for learning outside of school, or children with disabilities. Future studies would benefit from broadening the pupil selection to ensure these stories are included. Adamson's (2020b) ethnographic study provides an excellent model of how extended classroom observation can inform purposive sampling for interviews, "to ensure that a range of students' voices were captured" (Adamson, 2020b, p. 132) and future research would benefit from a similar approach.

I stand by the contribution that this study makes to understanding the rural-urban continuum and to addressing the overlooked place of secondary towns in urban research (Ingelaere et al., 2018, Moshi et al., 2018, Wenban-Smith, 2015). However, as noted above and in Chapter 6, due to my limited influence on the selection of pupil participants, the accounts of children's out-of-school learning experiences focused on the greenbelt areas where this small group of children lived. As Baraka said, "there are many challenges in the city centre" (DEO/I), and this study has not been able to capture children's experience of tackling the challenges of living in densely populated urban areas. Tudge's study (2008) suggested that urban living impacts on Kenyan children's sense of responsibility and social interaction and it would be fascinating to explore the shifts in trajectories of togetherness and the effects on learning for Tanzanian children, especially at this time of rapid urbanisation (DESA, 2019). Considering the world-changing events of 2020-2021, there has been a shift in focus to better understand out-of-school learning and the impact of COVID-19 on learning, but in future research it would be a shame to only focus on *academic* out-of-school learning, especially literacy and numeracy, and not to hold on to learning in its wider sense, including, for example *learning to live together* and learning shared responsibility.

Finally, my interest in children's learning and pedagogy in Tanzania started when I was working at Katoke TTC in 2009. I am acutely aware of the omission in this thesis on learning of discussion of *teacher* learning, their development of knowledge and skills and the support required for them to improve their pedagogical practices. Although teacher participants did raise the issue of the lack of professional development opportunities, this was not a dominant theme. However, in terms of alignment of education system components, effective teacher education and ongoing relevant support is absolutely critical (Orr et al., 2013, Westbrook et al., 2013). Each of the points in the 'implications for pedagogy' section can be extended into a discussion of requirements for an initial teacher education curriculum, for example, exposure to dialogic practices, developing meta-cognitive skills and exploring how to support pupils to develop theirs, and assessment of oral and practical tasks as well as written.

In light of these reflections and the previous suggested implications of this study, there is scope for future research to further 'open up' our understanding

of learning spaces, "making room for a genuine multiplicity of trajectories, and thus potentially of voices" (Massey, 2005, p.55).

Final thoughts

I am sure this final reflection stands for most social science theses, but it bears highlighting here. This thesis itself only tells a story-so-far. The day after I left Tanzania in March 2020, the Tanzanian government closed all schools because of COVID-19. Like many countries, schools re-opened three months later but there is significant concern that the learning losses will continue to accumulate, and many children will never catch up (Kaffenberger, 2021). Through ongoing communication with Hereneus, I learnt that when schools reopened, the school day was extended by two hours, from 8 am to 4.30 pm in order to cover the curriculum before the national examinations. The PSLE was pushed back for a few weeks but otherwise went ahead as planned. In this regard, the 'new normal' seems to be a more intense version of the previous normal as a 'COVID catch-up' trajectory enters the already crowded classroom.

UNESCO's newest global education report calls for us to *Reimagin[e] our futures together* and urges "urgent action to change course" (UNESCO, 2021b, p. v), and numerous studies assessing the scale of learning loss highlight the need to 'build back better' (e.g. Kaffenberger, 2021). This is undoubtedly a time of unprecedented change, and as Katz observed during a different period of change:

> Children coming of age in a period of rapid socio-economic transformation bear the brunt of these shifts, perhaps throughout their lives (Katz, 1986, p. 50).

More than ever, we need to think about the kind of learning that is important for children now and in the future, the kind of learning spaces where that can take place, and how they are produced and negotiated. Interventions to 'build back better' cannot enter neutral spaces, but they could, with care and consideration, enter and mingle with existing trajectories to create more supportive places for children to learn and to continue their stories-so-far.

Appendices

Appendix 1: Photo-elicitation instruction sheet for pupil participants

Kiswahili and English versions

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Maelekezo

Utapiga picha, shuleni na nje ya shule, zinahusu mambo yafuata yo:

- Kitu unachoweza zaidi kufanya
- Kitu kinachokushinda kufanya
- Kitu ulichojifunza muda mfupi uliopita (siku, mwezi, au mwaka uliopita)
- Kitu unachotaka kujifunza baadae
- Kitu kinachokusaidia kujifunza
- Kitu kinachofanya usijifunze vizuri
- Kitu unachokufurahia
- Kitu (kazi) ambacho ni kigumu kukufanya

Kama unahitaji kupiga picha zako binafsi, unaruhusiwa kupiga 2 – 4 na tutazisafisha na kukupatia (mfano za familia yako).

Asante.

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Instructions

You will take pictures, in school and outside school, of the following things:

- Something you're good at
- Something you're not good at
- Something you recently learned to do
- Something you want to learn in the future
- Something that helps you learn
- Something that makes it hard to learn (disturbs / barrier)
- something fun for you
- something hard work for you

If you would like to take some personal pictures too (for example of your family), you can take 2- 4 and I will print them and give them to you to keep.

Thank you

Appendix 2: Pupil go-alongs schedule and prompts

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Go-alongs

Participants:	pupils
Duration:	dependent of school / home journey but this should not require any extra time from pupils as it is a journey they would be doing anyway, and pupils / parents will specify a day/ time that suits them to be accompanied.
Themes:	As much as possible the content of the discussion will be directed by the pupil, under and guidance that *the researcher would like to accompany you on your home - school journey and learn more about your school and neighbourhood.* The discussion will ideally be environmentally queued and involve the participant responding to his/her surroundings as we walk. Where appropriate, the following prompts could be used if the researcher feels the discussion has moved too far from the focus area: • good and bad things about the places we are going through • reasons for liking / disliking a particular place or space • memories of a particular place / space • first time / first impressions of a place / space • changes in the school • changes in the neighbourhood • the school compared to other schools • the neighbourhood compared to other neighbourhoods • the future of the school / neighbourhood • the places he / she would / wouldn't like to live

Appendix 3: Sample interview schedule

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School:

Date:

Time:

Location:

01A: Semi-structured interview   TEACHERS

Participant name:	
Duration: Themes:	(max 1 hour)

Background info:

- o Where from?
- o How long in Bukoba?
- o Qualifications?
- o Length of time as teacher?
- o Length of time in this school?
- o Subjects?

Professional experience
- Can you describe your job and duties?
- Previous jobs / schools
- Like / not like about this job / school
- comparison of this school with others

Closing Q. Is this school a 'good school'? if so, what makes it good? If not, why now?

School, pupils and neighbourhoods
- What classes do you currently teach?
- How can you describe your pupils in general? (pupil characteristics, e.g. home background, abilities, behaviour, motivation)

- Changes teacher has perceived / experienced in:
  - o Pupils
  - o School

- What are the implications of any perceived changes on teaching and learning?

- Description of urban school neighbourhood and neighbourhoods of pupils (home environment)

- Changes teacher has perceived / experienced in neighbourhood (Tell T growth rate of ward and ask if they see change.

- What are the implications of any perceived changes on teaching and learning?

Pupil learning
- What do you want your pupils to learn? (achieve) Why?
- How do you know when you've been successful?

- What curriculum and syllabi are you using?

- What do you think of the current curriculum? (compared to the old one?)

- Can you describe your approach to implementing the curriculum? (mediate between curric and pupils?)

- Is there anything in particular you do to make it more relevant to the specific class you're teaching? More relevant to their lives?

- What do you think really helps pupil learning? (Inc. IN the classroom)
- What are the main things you do to help pupils learn?

- What hinders pupil learning?
- What do you do to overcome this?

- What changes have you seen in policy or curriculum that you think have helped / hindered pupil learning?

- What do you / your school need to support your pupils to do well / succeed?

- What kind of things do children learn outside school compared with in school?
- What opportunities do your pupils have to apply classroom learning outside school?

- What are the things that influences you on how you teach?

Closing
- What advice would you give an NQT starting work at this school / with your current class? And why?
- Is there anything else you'd like to add which has not been covered?

Appendix 4: Classroom observation schedule

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Classroom Observation Schedule   **Part 1**

Participants:	Teachers and pupils
Duration:	dependent on length of lesson, c. 40 mins

Date:		**Period:**	
Subject:		**Time:**	Start: Finish:
Unit / page		**Classroom:**	
Teacher:		**No. of pupils**	

Classroom description: (include drawing of layout)

Classroom Observation Schedule Part 2

Time	Teacher Activity	Pupil Activity	Comments

Appendix 5: Pre / post observation interview schedule

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Pre / Post Observation interview

Participants:	Teachers	
Duration:	Pre-observation : 10 – 15 mins Post-observation – 15 – 30	

Themes:	Pre-observation
	
	• planned lesson objectives
	• planned use of resources
	• pertinent information about the pupils in the class
	• anticipated problems
		Post-observation
		
		• Reflection on the lesson:
		   o successes
		   o challenges,
		
		(Especially regarding pupil learning and achievement of aims)
		
		Researcher probes for reasons and justifications for teacher decisions and actions
		
		• discussion of critical incident – teacher identifies 1 moment or activity that he /she sees as significant

Appendix 6: Sample observation notes

03A: Classroom Observation Schedule Part 2

Link to prev. learning

Time	Teacher Activity	Pupil Activity	Comments
11.20.	Introduce a lesson – asks re. prev. *lessons* – How Africa react against at. invasion? "Which countries colonised...? (Ask to raise hand). "Ask why leave/failed?" (will vary...) "Why do you love/hate salt."	Pps raise hands. Used names to select. → Pps tried → *Move wrong* Many raised hands... ∴ pps answered Kiswa.	*Phys position on task.*
	T invites pps to write on board. 1 clap for right answer. T asks "Ni kweli?" to check right answers. Is he right? Correct "Spain" – to Hispano "Ya'll meet Spain in Econoday).	– Pp write on board – awareship through movement. – "Ndiyo"; "Hapana."	
	T walks up to approach pp to hear – Then repeats ans to class.		Proximity / T movement

Appendix 7: Sample Participant Information Sheet

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Participant Information Sheet for Head Teachers

Title of Project:	Perceptions and experiences of urban neighbourhood teaching and learning environments and implications for pedagogy in Tanzanian primary schools: a comparative case study.
Name of Researcher:	Rhona Brown
Supervisors:	Prof. Michele Schweisfurth, Dr. Amin Kamete

Invitation:

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

What's the purpose of the research study?

This study forms part of my doctoral research on education in urban Tanzania. The main purpose of this study is to explore the relationships between the urban neighbourhood environment and primary classroom teaching and learning. I want to understand more about what it is like to be a teacher and pupil in different urban neighbourhoods and how they see their neighbourhoods in terms of teaching and learning environments. I am also interested in finding out if participants think their neighbourhoods are changing and in what ways all of this might affect teaching and learning in the primary classroom. This study is also linked to a wider project: *Sustainable, Healthy, Learning Cities Project,* which aims to increase our understanding, and ability to address, urban, health and education challenges in neighbourhoods across fast-growing cities in Africa and Asia.

Do I have to participate?

Your participation in this study is entirely voluntary. If you choose to participate, you have the right to withdraw at any time without providing a reason. In the event that you decide to withdraw, discussions will be held with you on how, if at all, any existing data will be used

What's involved if I participate?

If you agree, you will be asked to participate in a face to face interview which will take about an hour. I will ask you a series of questions about your school, neighbourhood and

pupils. You will be encouraged to answer in as much detail as you want and you'll be free to introduce new topics too. This will take about an hour and, if you agree, will be audio-recorded. This interview will be conducted in either English or Kiswahili with an interpreter, depending on your preference.

Will my participation be anonymous and confidential?

Your participation will be known to me, the research assistant and the colleagues involved at the school. However, I cannot guarantee that others will not learn of your participation as the number of participants is quite small and so your participation may not remain confidential. **However, what you say during the research will remain confidential.** I will audio-record the interview but this recording will only be heard by me, the translator and my supervisors. When I transcribe the interviews and type up the observation notes, your real name will be replaced with a unique code number and at the end of the research study the document linking your name to the code number will be destroyed making it anonymous. All other documents with any of our personal details will be destroyed at the end of the study.

In any publications coming from this research, I will refer to you, your school and district using pseudonyms.

Please note that confidentiality will be maintained as far as it possible, unless during our conversation I hear anything which makes me worried that someone might be in danger of harm, I might have to inform relevant agencies of this.

What will happen to the data collected?

Throughout the data collection and analysis process, all data will be stored securely on an encrypted laptop. Only I will be able to access it and I will only share it with my supervisors

I will keep a note of your name and contact information to be able to communicate with you in matters relating to this project (for example, to share any findings with you) but this contact information will be stored separately from the data.

You will be able to withdraw your personal data (name, contact details) at any time. You will be able to withdraw your responses up until May 2020.

The audio-recordings will be destroyed within one year of completion of the study.

The anonymised interview and observation data (i.e. transcriptions and notes without names or other identifiers) will be stored in the University of Glasgow repository for at least 10 years after the end of the study but will not be available to other researchers. Only I will be able to re-use the data for other purposes in the future.

What will happen to the results of the research study?

The data I collect will be analysed as part of my doctoral thesis. I also expect to publish a series of academic conference papers and journal articles and possibly a book or chapter. I may also disseminate the results of the research in policy briefs or research blogs.

What are the benefits and risks of participating in this study?

If you choose to participate in this study, you will have a chance to contribute to an international research project, your ideas will be valued and will inform the final research outputs. In addition, the researcher is a qualified and experienced English language

teacher and teacher educator and is happy to share ideas and participate in teaching activities in your school.

However, keep in mind that if you participate, you will need to give a little of your time to the researcher for the interview. We will discuss the time commitment at the beginning so that everyone agrees on what is possible. In addition, as mentioned above, the researcher cannot guarantee that your participation would remain confidential; others may find out that you are taking part.

<u>What should I do if I have concerns about this study?</u>

This research study has been approved by the University of Glasgow College of Social Sciences Research Ethics Committee and has been given clearance by Tanzania's COSTECH. However, if you have any concerns about how this research is being carried out or have any questions, please contact me directly:

Rhona Brown
Mobile: ▇▇▇▇▇▇▇▇
Email: ▇▇▇▇▇▇▇▇▇▇▇▇▇▇▇

Or, if you prefer, contact the University of Glasgow Ethics Officer, ▇▇▇▇▇▇▇▇▇.

College of Social Sciences Ethics Officer, ▇▇▇▇▇▇▇▇, email:
▇▇▇▇▇▇▇▇▇▇▇▇▇

_____End of Participant Information Sheet_____

Appendix 8: Sample Consent Forms

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Consent Form: Head Teachers

Title of Project:	Perceptions and experiences of urban neighbourhood teaching and learning environments and implications for pedagogy in Tanzanian primary schools: a comparative case study.
Name of Researcher:	Rhona Brown

I confirm that I have read and understood the Participant Information Sheet for the above study and have had the opportunity to ask questions.

I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason.

I acknowledge that participants will be referred to by pseudonym in any publications arising from this research.

Data usage and storage

- All names and other material likely to identify individuals will be anonymised.
- The material will be treated as confidential and kept in secure storage at all times.
- The material will be retained in secure storage for use in future academic research only by the named researcher
- The material may be used in future publications, both print and online.
- I agree to waive my copyright to any data collected as part of this project.

Tick one:
I consent to **interviews** being audio-recorded. ☐
OR
I do not consent to **interviews** being audio-recorded. ☐

Tick one:
I agree to take part in this research study ☐

I do not agree to take part in this research study ☐

Name of Participant …………………………Signature ………………………………… Date ……………

Name of Researcher …………………………. Signature ………………………………… Date ……………

………………………… End of consent form ……………………………

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Parents' Oral Consent

By giving your name and your child's name to record here, you are agreeing to the following:

- I have understood the information about the study.
- I agree to my child's participation in this study.
- I agree to the interviews and group activities in which my child participates being recorded.
- I agree that the pictures my child takes as well as the artwork he/she creates during the data collection sessions can be used for this study.

Please also give a contact number:

Parent's name and contact number	Child's name
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

Appendix 9: Example of themes and trajectories on NVivo

Nodes

Name		Files	References
⊟ ○ 00. TRAJECTORIES		0	0
⊟ ○ 01. TOGETHERNESS		0	0
⊟ ○ 01A. HOME_COMMUNITY AND SOCIAL COHESION		15	35
⊟ ○ 02. SHARED RESPONSIBILITY		0	0
○ A. COMMUNITY OWNERSHIP OF SCHOOLS		10	26
○ B. TEACHERS and PARENTS ROLES		8	13
⊟ ○ C. WORK, CLEANLINESS AND LEARNING TO		1	2
○ 04D. SKILLS FOR COMMUNITY AND NAT		6	20
⊟ ○ HOME_SHARED RESPONSIBILITES_INC P		9	54
⊟ ○ a. RURAL SPACES - RURAL SKILLS		14	23
○ b. from renting in town to buildin		11	17
○ SCHOOL_WORK AND CLEANLINESS		5	8
⊟ ○ 01B. SCHOOL AND NATIONAL IDENTITY AND UNIT		6	11
⊟ ○ 03B. SCHOOL REPUTATION BUILT ON DISCIPLIN		5	5
○ d. SMART MODERN SCHOOL_SMART MODE		14	49
○ e. OLD SCHOOL_TRAD DISCIPLINE AND VAL		10	33

Appendix 10: Example of coded go-along transcript for story-so-far

	R. and have you noticed many changes since you've lived in this house?	
	P. yes, there are more buildings, like buildings for people to live; the environment is cleaner, due to the regional planning issues.	
	R. you say many people are building, but why is the number increasing?	we start climbing steeply up, across quite slippy, dusty rocks – He is much further ahead. Then we reach many women and chidren washing at the river and we cross the river on a well-built bridge.
	P. They want to live near town.	
	P. around this place there are portions / plots of land available, but you can't find those plots in the centre of town. 16.54	
Rec 3. 00.00	I. I am about to get lost in Bukoba! (R laughs)	shikamoos from small children
	I. is this Migera?	

Coding Density

E. RESEARCH PARTICIPANT_pupil story

C. SCHOOL pupil story

B _JOURNEY _ LOCAL KNOWLEDGE pupil story

A. HOME_ NEIGHBOURHOOD pupil story

REVIEWED 16.4.21_GENERATING PUPIL CASES

D. HOME_ SC

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